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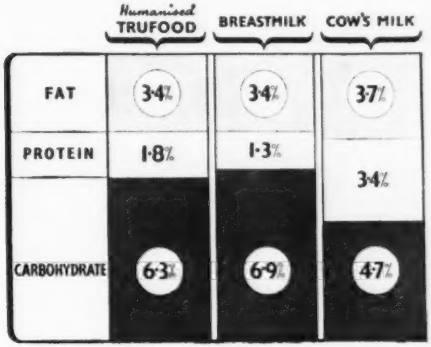

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EDITORIAL

The Medical Research Council

The last report of the Medical Research Council (reviewed in *Public Health*)* covered the work of the war years which was mainly devoted to short-term projects to answer immediate problems set by the fighting services. The report for the years 1946–48, recently issued,† describes the period of reconstruction of long-term research policy, resumption of some projects interrupted by war and consolidation of some begun during the war and found to meet continuing needs. The grants-in-aid voted by Parliament for the expenditure of the M.R.C. have risen to over £1 m. for 1948–49, a sum which looks munificent in comparison with pre-war levels but, when compared with the vast outlay on the National Health Service as a whole, seems rather a drop in the ocean. However, again in contrast with the N.H.S., the outlay on medical research has already good-will promises to produce definite dividends in the preventive field, despite "grave shortages of accommodation, of equipment and also of trained men."

One of the wartime developments now established as a permanent feature is, of course, the Public Health Laboratory Service, chargeable to the National Health Service, but still administered by the M.R.C. Another is the Royal Naval Personnel Research Committee, some of whose findings have already provided lessons for industry and civil life as well as a fighting service. A third is the Food Rationing (Special Diets) Advisory Committee, whose life is probably limited to the period of rationing and shortages.

The multifarious activities of the M.R.C. contain in every direction inquiries which are likely sooner or later to produce results which are capable of practical application by public health officers. Under studies of normal structure and function, research into human nutritional needs has been carried on at the National Institute at Hampstead, by units at the National Hospital, Queen Square (with a field research outpost), the Lister Institute and at Cambridge. One current problem dealt with by Mill Hill has been the possible effects on humans of the agene treatment of flour. On this subject a combined scientific committee of the Ministries of Food and Health, the M.R.C. and the milling industry, has now reviewed all the evidence and found none to support the theory that the improver in question (nitrogen trichloride) is toxic to men as it is to dogs and ferrets; but has decided that another "improver" (chlorine dioxide) should be substituted as soon as practicable. In this group also are researches in microbiology and parasitology and in genetics, the latter being carried out by the Blood Group Research Unit at the Lister Institute.

Under the group of studies of diseases are described the work of the committees on air hygiene (chairman, Prof. Cruickshank), on cross-infection in hospital wards (chairman, Dr. E. H. R. Harries), and on whooping cough immunisation (chairman, Prof. Downie), already familiar to the Public Health Service. Less known, perhaps, is the recent work on various aspects of occupational health and efficiency, including a Social Medicine Unit at the Central Midwives' Hospital, Units on Statistical Research and on Industrial Physiology at the London School of Hygiene, and on other aspects at Oxford, Cambridge, Manchester and London. This field has indeed shown the greatest expansion in medical research.

Two distinguished members of the M.R.C. staff, Sir Percival Hartley and Dr. Leonard Colebrooke, are bid farewell in this report, which is also the last to be signed by Sir Edward Mellanby as Secretary, in which office he has so brilliantly combined a personal distinction in research and skilful guidance of others.

"Outwork"

One of the subjects for field investigation chosen for the seminars of D.P.H. at the London School of Hygiene and Tropical Medicine in 1949 was that of "Outwork," that relatively small but increasing part of the industrial health field which is within the purview of the public health department. The suggestion came from Dr. D. H. Geffen (M.O.H., St. Pancras, and a part-time member of the staff of the school), who had become aware of an apparent increase in the outworkers in his borough, ascribed to the shortage of commercial working space and the passing out of work to persons in their own homes. The seminar set about a study of the effect of outwork on sociological conditions, and the results have been set out in a report which has not been published but is available on loan from the Dean of the school. The methods used by the seminar are themselves of some interest, starting with a questionnaire of 14 pages (!), the seminar having, like all enquirers, found the most difficult part of the task keeping within limits the questions to which they wanted answers. However, the actual visiting of 328 outworkers was successfully carried out by the seminar and St. Pancras staff between mid-January and end-March, 1949, and the material for some findings got in and collated.

The parts of the report dealing with the definition of and legislation affecting outwork should form a most useful reference to anyone wishing to go into these matters. In St. Pancras the greatest part of outwork is connected with the clothing and boot and shoe making trades, and 208 of the 328 were classified under "wearing apparel." Probably other areas could show a different distribution according to the local industries.

The visits to seven makers of high-class boots and shoes confirmed the traditional impression that there are men of an

*August, 1948, 61, 224.

†Cmd. 7846. H.M. Stationery Office. Price 5s. net.

individual stamp who "enjoyed the preference to work when and how they liked." The tailoring workers were likewise highly skilled and their standard of living, judged on space available and cleanliness, was mainly good. The above were working in their own homes, and the seminar prefer that this type of outwork should be called "homework" in contrast to the other type which is carried on by sub-contractors and outworkers working in workshops, usually adapted living houses shared with other firms and equipped with light machinery. Work in the latter conditions seems to be more adverse to the worker owing to the absence of canteens, music, holiday with pay and so on enjoyed by the regular factory worker. The seminar regarded the increase in St. Pancras outworkers as a temporary peak which has already declined and will continue to do so as regular workshops and factories are repaired and enlarged. They could find no evidence that if more nursery accommodation were available, more housewives would go to work outside the home, nor were children being used to assist outworkers. Conditions of home work were mainly satisfactory, perhaps owing to the above-average intelligence, initiative, cleanliness and tidiness of these often skilled workers; and no evidence could be found of adverse effect on the health of homeworkers. They consider homework to be specially suitable for the following: (i) disabled workers; (ii) elderly persons not able to stand the strain of journeys to and from work or to do a full day's work in an open factory; (iii) skilled workers in embroidery, hand-sewing of shoes, etc.; and (iv) the woman with one small child, but not with more than one.

Medical Science and Physical Education

The Research Board for the Correlation of Medical Service and Physical Education has already done useful service in organising and publishing the report on the enquiry into "Some Aspects of Physique in Boys and Girls" carried out by Mr. R. E. Roper in co-operation with the Tottenham Education Committee. We are glad to learn from the recent annual meeting of the Board, on which the public health service is represented by Prof. J. M. Mackintosh and Drs. E. J. Boome, J. L. Dunlop and Hamilton Hogben, that two further useful researches are being sponsored; one a two-year investigation among a group of slightly sub-standard boys, in a Shropshire school, to which a specialist teacher of physical education has been appointed; and the second, an investigation among 500 adolescents in industry at Slough. Such investigations, carefully carried out on a modest budget, may bring returns of new knowledge or ideas of much greater value than the outlay.

Inoculation against Pertussis

Since the fall in the incidence of diphtheria, pertussis and enteritis are the most dangerous infections to children. Although not nearly as prevalent as measles, whooping cough, because of its higher case fatality, often kills more. This reason, and the sequelae which remain in many of those who have suffered an attack, makes its control a matter of the greatest importance. Much work has been done on the preparation of an antigen. Hopes have been raised, only so often to fall again. In general more favourable reports have been received from workers in America than from those in this country.

Dr. G. E. Breen, epidemiologist, and Mr. B. Benjamin, statistician, of the Public Health Department of the London County Council, in an article on "The Control of Whooping Cough in Nurseries"* give a brief summary of these reports, and discuss the reasons for discrepancies. One suggestion is that an active antigen can be prepared only if *H. pertussis* in the smooth virulent phase one is used; some vaccines have been made from old rough cultures.

A controlled experiment with what was considered to be a satisfactory antigen was carried out by inoculating children in the London County Council residential nurseries. Although residential, these nurseries are not closed communities, and had experienced many outbreaks of whooping cough. Children who had already had whooping cough or who had previously been immunised against it were excluded from the experiment; the records of many, too, had to be rejected because the children left before the course of injections was completed. Apart from these, however, the children were divided into two groups, the one being given a combined pertussis alum precipitated vaccine and diphtheria toxoid A.P.T., the other, the controls, being given A.P.T. diphtheria toxoid. The risk of exposure of those in both groups was the same. The results were that whereas none of the 181 children receiving the full course of vaccine contracted whooping cough, ten of the 156 controls succumbed. As there was, therefore, a significant difference in the incidence of whooping cough between the vaccinated and the controls, it was concluded that the antigen used conferred a useful degree of protection against whooping cough. The antigenic potency of the pertussis vaccine was confirmed by complement-fixation tests.

* With a note on Complement-fixation Tests by A. Beck, M.D., *Lancet* (February 4th, 1950), **1**, 198.

OBITUARY

PERCY GILBERT HORSBURGH, C.M., M.D. LOND., D.P.H.

We record with great regret the death on January 2nd, at the age of 57, of Dr. P. G. Horsburgh, medical officer of health for the borough of Nuneaton since 1925. He was born in New Zealand but was educated in England at Highgate School and Bart's Hospital whence he qualified in 1917. In the first war he served as a medical officer in the Royal Navy then transferred to the New Zealand forces in France and finally to the Rhine Army of Occupation. On demobilisation he took the D.P.H. and started his public health career at Wellington, Salop. Thence he twice succeeded his brother-in-law, Dr. K. E. Tapper, first as M.O.H. Scunthorpe and again, in 1925, as M.O.H. Nuneaton.

In Nuneaton he built up fine services for maternity and child welfare and school health, one clinic, that at Riversley Park, being regarded as much in advance of the standards of that time. He had volunteered to serve with the British contingent which was going to Czechoslovakia for the proposed plebiscite of 1938, which was forestalled by the Nazi occupation of that country. In Nuneaton he was responsible for Civil Defence first aid services, and the award of the George Medal was for particular gallantry during a heavy raid on his town on the night of May 17th, 1941. In 1942 he was temporarily released by his Council to go on the Government's nomination to advise the Indian Government on civil defence and to organise schools, and was absent on this duty from May, 1942, until October, 1943. He was again released at the German surrender to serve with the Allied Control Commission from May, 1945, to April, 1946, and his description of the work of restoring health services in Berlin at that time, published in the *British Medical Journal*, drew wide attention.

In December, 1943, he had become M.O.H. for Bedworth urban district in addition to his Nuneaton post and finally, in the reorganisation under the N.H.S.A., 1946, he became Area Medical Officer for Leicestershire, for Nuneaton, Bedworth and Atherstone. He was a Fellow of the Society since 1923, and a popular member of the East Midland Branch.

We offer our sympathies to his widow, two sons and daughter.

HUGH ARWEL THOMAS, M.SC. WA., M.B., CH.B. LIV., D.P.H.

As we go to press, we have learned with regret of the death of Dr. H. Arwel Thomas, County medical officer of health and school medical officer, Denbighshire, whilst officiating at the count at Wrexham after the close of the General Election poll on February 23rd.

Dr. Thomas took the degree of M.Sc., National University of Wales, in 1919, and qualified in medicine at Liverpool University in 1923, taking his D.P.H. in the following year. He was also an Associate of the Institute of Chemistry. His first public health post was as Assistant R.M.O. at Highfield Sanatorium, Liverpool, whence he was appointed to Denbighshire as deputy C.M.O.H. and succeeded Dr. T. Roberts in the chief post in 1937. He had been a Fellow of the Society since 1936.

Dr. W. A. Bullough, C.B.E., who retired last year as County medical officer of health, Essex, has been appointed Medical Director of the County Public Health Laboratories, 66, Victoria Street, S.W.1, in succession to Dr. G. J. Laws. It is interesting to recall that the founder of the County Laboratories, the late Dr. J. C. Thresh, had also served as a M.O.H. (for two rural districts) in Essex.

Lt.-Col. E. F. W. Mackenzie, O.B.E., M.C., M.B., D.P.H., Director of Water Examinations, Metropolitan Water Board, will give a popular lecture at the Royal Institute of Public Health and Hygiene, 28, Portland Place, W.1, on Wednesday, March 15th, at 3.30 p.m., on "The provision and maintenance of a safe water supply for the consumer."

SOME REFLECTIONS ON FEVERS*

By E. F. DAWSON-WALKER, M.D., B.HY., D.P.H.,
Medical Officer of Health, Easington Rural District;
Medical Officer, Thorpe Isolation Hospital

When faced with the necessity of finding a subject for a Presidential Address it seemed to me, after some consideration, that, as the saying goes, "the cobbler should stick to his last," and since my main interest in recent years has been in infectious disease, both on the epidemiological and therapeutic sides, I thought it best to take some aspects of this subject for my address this evening. It is now just 19 years since I became an assistant resident medical officer at a fever hospital, but as one of the previous years had been spent in taking the D.P.H., I am entitled perhaps to say that I have had 20 years' connection with infectious diseases—a period which, though it lacks the nice "roundness" of the quarter century, is long enough to have seen many changes and some advances.

Sir Allen Daley, in his foreword to the first edition of Harries and Mitman's "Clinical Practice in Infectious Diseases" (1940), said, "During recent years there has been a substantial increase in our knowledge of the prevention and treatment of these diseases." In his foreword to the third edition of this work, published in 1946, he says, "New knowledge in the control and treatment of the acute infectious diseases is now being accumulated rapidly."

In 20 years one has certainly seen old theories discarded and new ones take their place—new lines of treatment introduced, some with much success, others only to be found wanting and discarded; and during the same period one has also seen the system under which one was trained, namely, with the local authority responsible for the prevention, control and treatment of infectious disease, pretty well disrupted.

I propose to group my remarks under three main heads:—

(1) the clinical side,
(2) the preventive side, and
(3) the future.

The Picture in 1930 and To-day

As a method of observing some of the changes and advances that have taken place in the last 20 years, let us follow in imagination "the houseman," or resident medical assistant of 1930, on his morning round. Let us suppose that his first call is at a "barrier ward," where cases such as pneumonia, enteric, dysentery, erysipelas, gastro-enteritis were, and still are, nursed together on a "barrier" or medical asepsis technique. Let us suppose the first case is one of pneumonia—the treatment, then, would be based on supporting the patient's strength by rest, good nursing and, possibly, stimulants until the "crisis" occurred. It is true that at that time pneumococci had been typed and Felton's serum was being occasionally used, but it was type specific and very expensive. Within the next few years arrangements were made for the rapid typing of pneumococci and the administration of the appropriate serum in severe cases, but in 1938 the introduction of sulphonamides to a large extent superseded all other lines of treatment, to be followed in 1944 by the antibiotic penicillin as a further possible line of treatment in certain cases. Some persons[1] think, however, that serum therapy in pneumonia has been too hastily discarded and that it still has its place as an adjuvant to chemotherapy, especially when there is bacteraemia.

Passing on to the next bed one might have found a case of enteric fever or, to be more accurate, an infection with the typhoid bacillus and, therefore, typhoid fever. Here, again, in 1930 treatment was confined to nursing and frequent small feeds, mostly of milk; 1936 saw the production of Felix's serum containing the Vi antibody, which has had favourable results and is now widely used in all severe infections. Encouraging results have been obtained in the past 18 months with the antibiotic chloramphenicol, better known as chloromycetin, though this form of treatment can hardly be said to have passed out as yet from the experimental stage. It appears to be effective against the paratyphoid organisms also, though as yet not much has been published on this point.

In the next bed there might have been a facial erysipelas, lying with swollen, almost unrecognisable features, eyes closed up and, possibly, delirious. In 1930 any number of treatments would have been tried; scarlet fever antitoxin, erysipelas antitoxin, painting with brilliant green and even ultra violet light, and the chances are that all would have been equally ineffective. The disease would either limit itself and clear up in its own time or the toxaemia would become more profound and the patient die. This state of affairs has been completely changed by the discovery of the sulphonamides which can be described as almost specific for this condition. It was in the treatment of this disease that in 1936 I had my first personal experience of these drugs. Information reached me about the new drug "prontosil," as it was then called, and of its striking effect in erysipelas, and its use at once caused a marked drop in the hospital death-rate from this disease. To-day it is rarely that cases of erysipelas are admitted to hospital as most of them clear up quickly under treatment at home.

Other cases which might be found in this ward would include patients suffering from dysentery and gastro-enteritis. In 1930 the former were mostly treated with a sod. sulph. mixture and modified enteric feeds, with a polyvalent serum for the worst cases. To-day sulphaguanidine and sulphasuxidine produce more rapid and satisfactory results. For the infantile diarrhoeas or gastro-enteritis of those days, one was limited to dietetic treatment with subcutaneous or, if one cared to risk it, intraperitoneal salines. To-day intravenous drip infusions, following the technique introduced by Bateman and others, whereby saline, plasma, and, if necessary, blood can be given, have made the outlook more hopeful in severe cases, though the mortality in this type of infection is still disappointingly high. Cases of the types I have mentioned would account for most of the patients in the ward, with the exception of an occasional rarity such as anthrax.

The next ward in the round of our imaginary resident might be, say, the diphtheria ward, which he would probably find comfortably filled, if not overcrowded. There would probably be several patients still in the acute stage and a number with complications of varying degrees of severity. The auscultation of hearts and the taking of blood pressures would keep him occupied for some time. To-day he would be unlikely to find more than a handful of patients, possibly none at all. The possible reasons for this state of affairs will be discussed later.

As regards the treatment of these cases, no radical changes have taken place in the intervening years. Complete rest and an adequate dose of diphtheria antitoxin at the earliest possible moment still remain the prime essentials in treatment. In 1930 more stress was beginning to be laid on the intravenous route for all severe cases, and in cases where this route is desirable but impracticable, the intraperitoneal route is now often used in order to obtain more rapid absorption.

I will say a word or two later about the concentration of serum and the typing of the diphtheria organism.

There is even yet no unanimity as to the dosage of serum. There have been advocates of the large massive dosage and those who thought that these huge doses were a waste. A report produced about 1934 by a committee of London fever hospital superintendents is now generally accepted as giving a fair guide.

For a time the blood sugar level was considered to be of importance, and it was hoped that the use of glucose and insulin would be of assistance in treatment, but, while the value of glucose was established, insulin did not turn out to be of much assistance. A considerable amount of work has been done with the aid of the electrocardiograph on the cardiac complications of this disease and the results have proved helpful in prognosis.

Penicillin has little, if any, effect on the acute stage of the disease, which is primarily a toxaemia, but it does clear the organisms from the throat more rapidly and may prevent the establishment of the chronic carrier state. Its ability to clear an established carrier is more doubtful, though some encouraging results have been obtained. In the laryngeal type

* Presidential Address to the Northern Branch, Society of Medical Officers of Health.

of the disease tracheotomy or (in hospital) indirect intubation were the operative methods used in 1930. Suction and direct intubation through the laryngoscope have since been introduced, and are sometimes used by those who have the apparatus and have acquired the necessary technique. Penicillin is useful in this condition and is said to avoid the necessity for operative interference in a proportion of cases.

Passing on to the isolation, or cubicle, block wherein were, and still are, accommodated those infections which either do not lend themselves to nursing in an open ward or are not usually admitted in large numbers, what is the position there? Let us suppose that the first cubicle or small ward contains one or more cases of cerebro-spinal meningitis. Here, again, the outlook and treatment have been completely altered by the introduction of the sulphonamides. Many of you will remember the exacting work of daily, and sometimes twice daily, lumbar punctures with the administration of intrathecal serum, sometimes to be followed by cistern puncture, should a "block" unfortunately supervene; and the frequently disappointing end to so much labour. Except in infants and fulminating cases, it is now rarely that cases of this type do not respond well to sulphonamide. In those that do not, penicillin and streptomycin can be tried. For those patients of which one used to see so much in infectious diseases hospitals because they came in as cases of cerebro-spinal meningitis, namely, tuberculous meningitis, the outlook is now greatly altered. Previously there was to all intents and purposes a 100% mortality, but with streptomycin a proportion now recover, though not infrequently with disabling sequelae. From one point of view the wheel has turned full cycle, and in these latter cases one is back to daily intrathecal injections for a period of many weeks.

Cases of pneumonia following on measles and pertussis would probably be found on this ward, and in these the outlook is now much more hopeful than in pre-sulphonamide and pre-penicillin days, though in broncho-pneumonia following pertussis the response to these remedies is sometimes disappointing. For the treatment of the primary condition in pertussis, the antibiotic aerosporin or polymyxin seems to have possibilities, but it would appear to be necessary to give it both intramuscularly and by inhalation to obtain the best results.

The treatment of puerperal fever in 1930 was restricted to local treatment plus the administration of scarlet fever antitoxin, this latter being given without much hope that it would do more than modify the toxaemia in cases due to the haemolytic streptococcus. Sulphonamides and penicillin have both proved of great value in these cases, usually cutting short the illness and reducing the mortality rate.

Similarly in the cases of ophthalmia neonatorum which sometimes found their way into infectious diseases hospitals, the old wearisome business of half-hourly irrigations and the instillation of silver nitrate or argyrol has been superseded firstly by sulphonamides by the mouth and later by the instillation of penicillin drops, with much saving of time and vastly improved results.

Lastly in our imaginary round we come to the scarlet fever wards, of which in 1930 there would probably be two or three, with a well described "septic" ward for complicated cases. To-day the position is different and probably only a few patients would be found, for reasons which I will mention later. In 1930 the classical work of the Dick's, carried out some six years previously, had been further developed, and scarlet fever antitoxin had been in general use for about four years. Since that time there had been little change in treatment until the arrival of penicillin. The sulphonamides, which so radically altered both the treatment and outlook in certain other diseases, were found after extensive trial to have little effect on the course of scarlet fever beyond modifying the initial angina. They were, however, found to be of use in the treatment of certain of the complications.

Penicillin is now more generally used for this purpose and is much more effective in clearing the infecting organisms from the throat.

The type of scarlet fever now prevailing is mild and the toxic and septic types of the disease which, though not common, were still occasionally seen in 1930, are to-day extremely rare phenomena. Some of you will remember the unhappy condition of the septic cases of earlier days—an angry blotchy rash, thick profuse purulent nasal discharge, with excoriated lips, marked adenitis and a bilateral otorrhoea, probably with incipient mastoid infection.

The toxic cases also could be alarming in their condition. I remember coming in one night to find a resident about to do a lumbar puncture on a collapsed semi-conscious child with a faint rash and a mild faucial angina, under the impression that it was probably a cerebro-spinal fever; 20 c.c. of scarlet fever antitoxin intravenously produced a dramatic improvement, and by the following morning the child was asking for food.

In 1930 the practice of retaining even mild cases in hospital until desquamation ceased had only recently been abandoned, and it was considered rather daring to discharge clean cases on the 28th day of disease. With penicillin treatment adults are now rarely detained longer than a week and children for about a fortnight or even less.

This, then, is a brief and sketchy outline of the chief changes in the treatment of the more common infectious diseases which have taken place in the past 20 years. You will notice that there is little or nothing to record about uncomplicated measles, varicella, rubella, mumps or poliomyelitis; in other words, progress has chiefly been made in relation to the diseases caused by bacteria, while the treatment of those due to filter passing viruses remains pretty much where it was.

Advances in Bacteriological and Preventive Knowledge

Let us now turn for a few minutes to what I may call the bacteriological and preventive aspects of fevers. Let us take first the streptococcus pyogenes. This is the causal organism in three conditions, scarlet fever, erysipelas and often puerperal fever. The years under review have seen the practical application of the knowledge gained from work on the antigenic structure of the haemolytic streptococcus. Briefly, it has been shown by Lancefield that the chief antigenic components of the streptococcus are three in number. Firstly, it contains a non-specific nucleoprotein somatic antigen which is found in both the haemolytic and viridans type of the organism; secondly, it contains a carbohydrate polysaccharide antigen, by the use of which she was able to classify the organism into the well known Lancefield groups. These number 12, and range from group A, which comprises most of the strains pathogenic to man, down to group N. Thirdly, it contains a type-specific protein by means of which other workers, chief among whom was Griffiths, were able to differentiate and identify many different types of haemolytic streptococcus obtained from human infections.[3] These discoveries not only greatly altered the outlook on the streptococcal infections in general and on scarlet fever in particular, but they have also been of great assistance in tracing the origins and paths of spread in outbreaks of this type of infection. I will try to summarise briefly some of the findings which resulted from the application of these techniques.

Firstly, they rather "blew the gaff" about the whole disease of scarlet fever. It was shown that, to quote Okell, scarlet fever is "but one of the multiple manifestations of infection by the haemolytic streptococcus in man, distinguished from the others by the addition of certain toxic manifestations to the ordinary reactions of tissue invasion that characterise all streptococcal disease." Griffiths and Gunn showed that what had long been considered to be a specific infectious disease, like cholera and plague, now appeared to be a morbid syndrome caused by any one of a number of serologically different streptococci. Two variable characteristics determine whether scarlet fever or simple streptococcal infection develops; the capacity of the infective agent to produce erythrogenic toxin and the pressure or absence in the host of specific resistance to that toxin.[3] Allison[4] states that he has seen the same serological type (Type 3), probably the same strain, cause septic infection of the wound in a case in a surgical ward, tonsillitis in another patient in the ward, and scarlet fever in the nurse who dressed the wound. The illogicality of notifying and admitting to hospital only those patients showing a rash, and ignoring those showing the other signs of streptococcal infection soon became obvious.

But more was to come. It was shown that, when scarlet fever cases were nursed in large open wards, the so-called "relapse" of a convalescent scarlet fever patient was, in the great majority of cases, due to a reinfection of the patient with a different strain of streptococcus pyogenes from that which caused the original disease. Furthermore, it was shown that the later complications during convalescence were generally due to a reinfection with other types of streptococcus pyogenes acquired from other patients in the ward.

The result of all this was to show that the large open ward for scarlet fever patients had become an anachronism, and to give added force to what had been urged by many fever clinicians for some time past, namely, that the majority of uncomplicated scarlet fever cases of the type prevailing to-day can with advantage be nursed at home. Those that, for various reasons, must be brought into hospital should be nursed in single or small wards. It is the gradual adoption of this view, in conjunction with other factors, that would explain the small number of scarlet fever patients in hospital to-day contrasted with 20 years ago, to which I referred earlier on.

Further investigations were carried out in throat, nose and ear wards, and in connection with surgical wounds and burns, which in turn have led to investigations on airborne infection and the part played by dust in the spread of disease. In short, the methods of spread and of prevention of acute streptococcal and of other upper respiratory diseases have been extensively studied during the past 15 years.

Passing on to diphtheria, the chief point of interest in this disease has been differentiation of the organism into the gravis, intermedius, and mitis types by Macleod and others. This differentiation is based mainly on the appearance of the colonies on a blood tellurite medium, their manner of growth in broth, and their power to ferment starch and glycogen. It has been of value in the epidemiological study of the disease and has shown, among other things, the inadvisability of bringing into hospital every carrier found among contacts in routine swabbing. Nursed in open wards, they were not only liable to persistent reinfection with their own type of organism, but quite often acquired a further infection with another strain.

Passing to enteric fever, Felix's and Craigie and Yen's discoveries of the Vi antigen and Vi phage typing of these organisms have been applied, the former in connection with the detection of carriers and the investigation of the carrier state, and the latter in the tracing of the origin and spread of the infection in outbreaks of the disease.

Next a word or two about the diagnostic tests and the prophylactic materials used in fevers. The Schick test and the Dick test were well established 20 years ago and their technique and use are much the same to-day, though some modifications have been made in the standardisation of the test dose of the former. The intradermal tests for susceptibility to pertussis, which had a short vogue, have now been discarded. Some workers read the "positives" as indicating susceptibility, others as indicating immunity. The cough plate and per- or post-nasal swab, are now available as more reliable aids in the diagnosis of this disease.

Passing on, we may survey briefly the prophylactics now available.

Immunisation against scarlet fever is still carried out with scarlet fever toxin, no satisfactory form of scarlet fever toxoid having yet been produced. The necessity for multiple injections, with a minimum of five, and the possibility of sharp reactions, have limited the scope of this procedure, and it is now practically only used in fever hospitals and institutions.

As regards diphtheria immunisation, which has made such dramatic progress in the last decade, formol toxoid (F.T.) was in general use in 1930 with toxoid-antitoxin floccules (T.A.F.) just coming in. We have seen the introduction of alum precipitated toxoid first as the much vaunted "one-shot method," and its general adoption after it had found its proper level. Recently its position has been challenged by purified toxoid, aluminium phosphate precipitated, introduced by Holt, of St. Mary's Hospital. There is a possibility, but a possibility only, that this latter preparation may provide what A.P.T. failed to provide, namely, an efficient method of "one-shot" immunisation against diphtheria.

For the prevention and "attenuation" of measles, convalescent serum and pooled adult serum were just coming into use, and the ugly spectre of homologous serum jaundice had not then raised its head. In the intervening years first immune globulin, prepared from the blood of pooled placentas, and more recently gamma globulin, a preparation consisting of the fraction of human blood containing the chief immune bodies, have made their appearance. This latter product appears to be free from the risk of post-inoculation jaundice and has, in fact, been used in the treatment of this condition.

A satisfactory prophylaxic against whooping cough, a thing most urgently needed, can hardly yet be said to have been achieved, but much research and investigation are in progress and the carefully controlled trials now being made under the auspices of the Medical Research Council are showing results; and a satisfactory antigen may be produced in the not too distant future.

In the prevention of enteric fever improvements have been made in the manufacture of T.A.B. vaccine, and further research is being made into the methods of preparing an alcoholised T.A.B. vaccine, which will conserve the antigenic properties of the Vi antigen. This latter preparation may eventually supersede the heat killed vaccine.

At long last B.C.G. has become available for the greater protection of tuberculin negative nurses.

To conclude this section, a word or two about some improvements in that material which still constitutes a major item in our therapeutic armament, namely, serum. To quote from Parrish's "Bacterial and Virus Diseases," in 1896 10,000 units of diphtheria antitoxin were contained in 50 c.c. of serum. In 1910, after the method of concentration by fractional precipitation with ammonium sulphate had been worked out, 10,000 units of D.A.T. were contained in 10 c.c. of serum. In 1931, with further improvements in technique, 10,000 units of D.A.T. had been concentrated down into 5 c.c. In 1944, by using the proteolytic enzyme method of treatment, 10,000 units of D.A.T. were contained in 2·5 c.c. of serum. Serum reactions and rashes have become very much rarer as a result of these advances in purification and concentration, and for those unfortunate few who do develop the latter, there are now the antihistamine drugs which seem to be more efficacious in relieving their discomfort than the old calcium lactate and/or adrenalin.

The chief weapon of the fever clinician is still the needle and syringe, with occasionally the lumbar puncture needle. Much more attention is paid to these instruments to-day, in contrast with the rather haphazard methods of earlier days, and practically everything at present known about syringes has been summarised in a booklet entitled "The Sterilization, Use and Care of Syringes," prepared by a committee appointed by the Medical Research Council, and published by His Majesty's Stationery Office, price 4d.

Lastly, let us consider quite briefly that much maligned institution, the fever hospital; its chequered past, its present unhappy position and its shadowy future. Disregarding the leper hospitals, pest houses and other similar institutions, fever hospitals as we know them began to be provided in the latter half of the nineteenth century. The Metropolitan Asylums Board was formed in 1867, and the larger provincial cities gradually followed suit. At the turn of the century many small fever hospitals were built by the local sanitary authorities following on the introduction of compulsory notification of infectious diseases.[8] The idea behind this was that prompt isolation of all cases would gradually lead to a marked diminution, if not the elimination, of infectious disease. This hope was not realised, the explanation being provided by the advances in bacteriology which revealed the "carrier" and the "missed" and "abortive" case. The emphasis then changed from isolation to treatment, and many of the bigger fever hospitals enlarged both their equipment and medical resources and developed into first-class hospitals, dealing not only with the notifiable diseases but also with cases not welcomed in a general hospital. This shift of emphasis,

and the coming of motor transport, soon showed that the small isolation hospital had had its day. In the mid '30s, plans were laid to abolish many of the smaller hospitals and to concentrate infectious cases in the larger units, with a minimum of 100 beds and at least one resident medical officer.

The arrival of the sulphonamides in the late '30s brought cases such as pneumonia and meningococcal meningitis under therapeutic control and greatly shortened the length of stay in hospital. Scarlet fever remained mild, and the immunisation campaign against diphtheria greatly accelerated the already falling incidence of this disease. Six years of war, with evacuation and shelter life, failed to produce the large-scale epidemics which were expected, and now some people are wondering whether infectious disease hospitals are necessary at all. They ask whether a cubicle isolation block attached to the local general hospital, with arrangements to provide an extra ward or two should any disease become temporarily epidemic, would not now be adequate provision for the treatment of infectious disease. Dr. Fraser Brockington, in an article in a recent *Lancet* [6], writes, "The only type of hospital which has so far been made almost wholly redundant—and the first I hope of many—is the fever hospital."

Is not this point of view, that the fever hospital is now redundant, a little premature and rather taking things for granted? Of course, if bacteriology makes such strides that efficient prophylaxis becomes available for all communicable diseases, including those due to the viruses, and if therapeutics advance to such an extent that the few cases that do develop have only a "nuisance value," then there is no more to be said. Infectious diseases hospitals as we know them will rapidly become redundant. But even if this happy state of affairs should come about eventually, it is, I think, rather optimistic to assume that it will be in the immediate future. Epidemic disease is a curious phenomenon and the complexity of the subject can be gathered by reading the chapter in Topley and Wilson on "Herd Infection and Herd Immunity," and the chapter on epidemiology in Harries and Mitman. We know that while the type of scarlet fever in this country is extremely mild at the moment with a very low case mortality rate, there is, or was a year or two ago, a much more virulent type occurring in Eastern Europe. In some places the number of children immunised against diphtheria is beginning to decline. The poliomyelitis epidemics of 1947 and the present year have required a considerable amount of isolation accommodation, since isolation is still officially recommended for the first 21 days of the disease. In the description of an outbreak of paratyphoid fever in Bedfordshire in the annual report of the Chief Medical Officer to the Ministry of Health for 1947, we are told that "during this outbreak some difficulty was experienced in finding isolation hospital accommodation and the situation was made more difficult by the fact that the poliomyelitis epidemic was in progress. At quite an early stage of the epidemic patients had to be accommodated in 12 different hospitals." Furthermore, we are told by Prof. G. S. Wilson, in "Modern Trends in Public Health," when he is describing the course of training mapped out for recruits to the staff of the Public Health Laboratory Service, that these recruits must be of the right type, undergo a searching interview, submit to intelligence and certain psychological tests. They are then to be advised to spend three months in a residential appointment in a fever hospital in order to become acquainted with the clinical features of the infectious diseases and learn how to handle children. So, apparently, even these hand-picked élite can learn something from the fever hospital.

There will also have to be a change of outlook among the staffs of general and children's hospitals. I suppose most of us who still control infectious diseases hospitals continue to receive telephone messages from the admission blocks of general hospitals, saying that there is a case for admission but it has got a "rash," or it has got "diarrhoea," and cannot possibly be admitted to a general ward. What is to happen to these cases if there is no fever hospital on which to unload them?

No, I think that the larger infectious diseases hospitals, at any rate, must be kept in being for a period, though the number of beds considered necessary in the past is much in excess of present-day requirements. They will deal more with influenza, poliomyelitis, whooping cough and gastro-enteritis rather than the scarlet fevers and diphtherias which formerly made up the majority of their patients.

Two other thorny questions remain, and as time is short I will limit myself largely to quotations.

These are, firstly, the transfer of the fever hospitals from the control of the medical officers of health to the Regional Hospital Boards, and secondly, the administrative control of infectious diseases hospitals.

As regards the first, I will quote from the recent Presidential Address to the Society of Dr. Maurice Williams. While he does not dispute that the merging of the voluntary and general local authority hospitals under regional authority was not a logical policy, "It was undoubtedly," he said, "an administrative blunder to include the infectious diseases hospitals, with their complete severance from the field work and environmental factors which remain the responsibility of the local authorities." On the whole, I am inclined to agree with this statement. The old arrangement worked tolerably well when viewed as a whole, and I am doubtful whether the new one will work as well, let alone better.

As regards the second, I will quote the words of E. H. R. Harries in an address to the Fever Hospitals Group of this Society in June, 1948. "It must be added that the hospitalisation of large numbers of patients suffering from diverse acute infective processes demands not only diagnostic and therapeutic skill but intimate, or rather ingrained, knowledge of the various precautions against cross infection and the conditions under which each must be employed. The answers to such medical administrative problems must be forthcoming without hesitation unless patients are to be endangered or wards closed, and they obviously can only be given correctly by a specially trained doctor. No layman, however gifted in other directions, can successfully solve the every-day medical administrative problems of a large fever hospital." With this opinion I wholeheartedly agree. Anyone who has controlled a busy fever hospital during epidemic periods knows the many problems which arise at a moment's notice, the shifts and changes which have to be made in order to accommodate cases, and the staffing difficulties involved. I cannot see a layman, who would in any case probably be missing when most wanted, being able to "cope," as the saying goes, in these circumstances. Of course, if the day comes when infectious disease cases are a rare occurrence, every ward a cubicle block, and trained staff in plentiful supply, then these problems will no longer arise, but in the conditions now prevailing it seems to me that medical administration in infectious diseases hospitals should be retained.

In conclusion, I must thank you for listening patiently to these rather scrappy and disjointed "Reflections on Fevers."

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[3]Control of Common Fevers (1942). *The Lancet Ltd.* pp. 84 and 85.
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[5]GUNN. Modern Trends in Public Health (1942). Butterworth. p. 135.
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County District M.O.H. Group.—The Annual Meeting of the Group will take place at the Mansion Hotel, Eastbourne, on **Wednesday**, April 26th, 1950, at 8 p.m. Dr. Arnold Brown (County M.O.H., Cheshire) will speak on "The Duties of a Medical Officer of Health of a County District." Any M.O.H.s of county districts who are members of the Society of Medical Officers of Health but have not been attached to this Group and are desirous of being so, are asked to write to the Hon. Secretary, Dr. R. C. M. Pearson, Town Hall, Watford, Herts, so that their names can be added to his list.

Home Counties Branch.—Dr. J. A. Scott (Dep. C.M.O.H., London) and Dr. V. O. B. Garside (Dep. C.M.O.H., Oxfordshire) will open a discussion on "Occupational Health Services and Local Health Authorities" at a meeting to be held in Room 103, London School of Hygiene and Tropical Medicine, on **Friday, March 10th**, at 3 p.m. Members of the Metropolitan Branch or other Branches are also invited to attend.

HEALTH AND HEALTH EDUCATION*

By A. A. LISNEY, M.A., M.D., D.P.H.,
County Medical Officer of Health, Dorset

We have just passed the centenary of the first appointment of a medical officer of health. We can, therefore, look back on 100 years of progress in the realms of public health, and there is no doubt that during this period some of the greatest advances in medicine were the direct result of the pioneering work carried out by our predecessors in the health service.

The most obvious result of this progress is reflected in the considerable decline in the incidence of infectious and contagious disease, tuberculosis, maternal and infant mortality, and the steady increase in the expectation of life. Undoubtedly the largest contributory factors to this progress have been the general improvement in sanitation and housing, and the attention which has been paid to personal cleanliness.

Until recently, the conception of health was limited to the physical aspect of the individual, and preventive medicine was confined to his immediate environment.

The Broader Concept of Health

As just stated, the word "health" has in the past been used in a limited sense; as a mere negation of disease, so that when a person was not suffering from a definite pathological entity, he was deemed to be healthy. Undoubtedly this restricted concept did not satisfy all, but it was not until the publication of the Beveridge Report in 1942 that a definite reference occurs in an official document indicating a wider conception. I refer to the expression "positive health" which first appeared in this report, and has been used on a number of occasions since.

No satisfactory definition of "positive health" has been propounded officially, and although the expression is clumsy, it does give a clue to a wider meaning. The World Health Organisation has defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity," but this does not go far enough.

Perhaps a broader concept of health is not exclusively modern, as we find that in the ancient Greek civilisation, which was of a high order, the Stoics used the word "eudaimonia" to indicate what would best be described in English as "a state of well-being" or in French "joie-de-vivre."

To go even further back historically, the word "health" appears in the Bible in many places, and does definitely seem to denote something more than just the absence of disease. In the Prayer Book also, we frequently admit that "there is no health in us," which indicates that health is something which can be either present or absent quite independently of the presence or absence of disease.

In order to arrive at a satisfactory definition for the wider aspect of health, or "positive health" as it is now termed, I would suggest the following:—

> "*That health can only be achieved when there is spiritual, mental, and physical equilibrium in the individual; it is the fountain head of true joy and happiness.*"

Let us now consider these components, and see how and to what extent they each have a bearing on the others. I will refer to them in the reverse order of importance as this will link up more closely with the chronological development of the subject.

Physical Health

We are all agreed, I hope without reservation, that the physical health of the individual has improved considerably since the early days when our predecessors tackled the then enormous problems of sanitation. As Prof. Ryle has rightly pointed out, one cannot divorce social medicine from pathological medicine in its widest sense, and many other improvements in the health of our people have gone hand in hand with progress in the field of clinical medicine and pathology. The biochemist has contributed by increasing our knowledge of the composition of foodstuffs, and the physiologist has also assisted in demonstrating to us how these various components are assimilated by the human body.

The problem of nutrition deserves close attention, as it is now not so much a problem of the individual as a problem of the community, in fact, a world problem. Fairfield Osborn, in his recent book "Our Plundered Planet," has pointed out that man is faced with a danger more potent and more destructive than the atom bomb itself.

To understand the position we must bear in mind certain facts. Although, as mentioned above, considerable progress has been made in the reduction of the incidence of many of the communicable diseases, a study of the vital statistics during the same period clearly indicates that "new" diseases are developing, so far without check, and that these diseases are degenerative in character.

By this I refer, of course, to the increase in the incidence of, for example, cancer, heart disease, the arterial diseases. One naturally expects to find an increase in the incidence of some forms of these diseases by virtue of the increasing expectation of life, but this fact alone cannot explain away the increase in the incidence as a whole, which is out of proportion and descends to the younger age groups. The conclusion is, therefore, forced upon us that for some reason undesirable changes are occurring in the human body indicating a degenerative process or series of processes.

Is this a nutritional problem? And if so, how is it brought about? There is much evidence that this problem is, in fact, connected with nutrition. Since the so-called industrial revolution man is tending to live more and more in urban communities which has been expressed frequently as a "drift from the land." At the same time as this urbanisation has been developing, the population of the world has been steadily increasing, so that, with more and more people to feed, fewer and fewer families are obtaining their food direct from their own estates. In other words, the food of urban populations is never as fresh as when it is eaten off the land, and the general tendency is for a greater consumption of processed foods. Moreover, if the present increase of over 20,000,000 per year, or 2%, continues, the world population will double itself in about 70 years.

Another fact which Osborn points out with great emphasis is that land available for cultivation is diminishing throughout the world and that this is the result, not only of urbanisation but of man's misuse. It has been estimated that less than two acres are available for each of us to obtain all we need in the way of food.

It is well known that the deserts of Northern Africa were once extremely fertile land upon which the Roman Empire mainly relied for sustenance. Osborn attributes the misuse of this land as one of the chief factors in the downfall of the Roman Empire. He draws the same parallel between the present deserts in Mesopotamia and the Near East, and the downfall of the earlier Babylonian Empire. Osborn also refers to the present position in America where the national attention was drawn to the danger in their midst by the severe dust storms of 1946 which blotted out the sun for days on end. These originated in the Western States, which were once rich lands, but are quickly becoming deserts.

This problem is, of course, one of soil erosion brought about by over-cultivation, the cutting down of trees and denudation of forests, and, according to Osborn, the extensive and unscientific use of artificial fertilisers.

It would appear, therefore, that there is abundant cause for concern in that the nutrition of our people and the people of the world is in grave danger, if not in jeopardy, unless immediate and active steps are taken on the widest scale to deal with the dual problem of an increasing number of mouths to feed and a decreasing amount of land upon which to grow our food.

Mental Health

The importance of mental health as a separate entity has only recently been recognised, and much remains to be done in this field. Some psychiatrists maintain that the accelerated momentum of modern living is a contributory factor in the increased incidence of the various manifestations of psychoneurosis, the commonest form of mental illness. Be that as

* Presidential Address to the Southern Branch, Society of Medical Officers of Health, October 21st, 1949

it may, the curative and treatment facilities are not anything like sufficient to deal with the problem, and here lies an opportunity for the regional hospital boards to extend their services to good effect. Juvenile delinquency, broken marriages, and the ever-increasing figures for divorce, all go to show that the mental health of the community is far from satisfactory.

The interdependence of the physical and the mental in the individual is easy to understand. For instance, our mental faculties are entirely non-productive while we suffer from a raging toothache. Conversely, somatic manifestations as the result of mental illesns are common and well known.

Little has been done on the preventive or educational side of mental health, but under the new Health Act local health authorities are given every facility to tackle this problem. I shall refer to this matter again later.

Spiritual Health

Man has recognised the spiritual side of his nature from the dawn of his existence on this planet, and there is evidence that as far back as neolithic times this appreciation of the spiritual preceded organised religion.

It seems to me that the spiritual side of man's nature expresses itself in two ways. Firstly, in the form of religion by which he worships his Maker. It is a pity that religious expression as we know it to-day is partially obscured by a smoke-screen of ritual and dogma, thus dividing us into a multitude of religious denominations instead of there being a completely united and simple expression of our faith.

The second, and no less important, expression of man's spiritual nature is through his aesthetic sense. We have all experienced the uplifting of our spiritual being when regarding a glorious sunset or a beautiful view, to give but one simple example. At such times one is absorbed in a fleeting realisation that in some way we also belong to another and eternal sphere, and that nature was designed to teach us this. I also believe that our spiritual make-up, through the aesthetic sense, finds expression in many other ways. For instance, the satisfaction experienced as the result of a job well done is, to my mind, a spiritual experience proving to us that we are here as mortals to carry out certain tasks to the best of our ability, and to use our talents to the best advantage.

How, then, can we achieve spiritual health? By having a simple faith; by appreciating nature to the full, and by using the natural resources we have at our disposal unselfishly and to the best advantage; and by carrying out our daily tasks to the best of our ability.

There are a number of people who in their daily work are "square pegs in round holes," who from the time of clocking-in in the morning are thinking of nothing but signing off in the afternoon, and who consider their daily tasks only in terms of what they are paid and how much they can make out of them.

This is only one symptom of present-day materialism, with its complete disregard for anything but personal pleasure. It is, perhaps, a flashback to the animal fundamentals of man's nature which is to seek pleasure and avoid pain. In this, however, no happiness will be found, as happiness is on a totally different plane. Happiness and pleasure are not synonymous and must never be confused.

Under a previous heading I drew attention to the interdependence of the physical and mental sides of our nature and, as I see it, a similar parallel may be drawn between the mental and the spiritual.

I believe that many of the mental disorders and illnesses which are present to-day are brought about by a lack of spiritual values and the absence of a simple faith.

Health Education

Health education in the past has been entirely confined to the physical hazards of disease and pestilence and how risks of infection may be minimised. Good work has been done in this respect by local authorities and the Central Council for Health Education, but it is no more than scratching at the surface of the wider problem involved.

Under the recent Health Act, the responsibility for health education has been placed fairly and squarely on local health authorities which, of course, means the medical officer of health, and we must carefully and with purpose plan the health education service of the future. The matter is summed up in the leader of a recent issue of *The British Medical Journal*:—

> "*The basis of local government in this country is the presentation of expert knowledge in such a way that the layman can grip it and act upon it. The medical officer of health is an interpreter.*"

During the past year or so I have often heard medical officers bemoaning the fact that they have been deprived of much of their responsibility, and that the only future they can see is the ultimate total eclipse of the medical officer of health and his work. This I consider to be a wholly defeatist and dangerous attitude, and we only have to turn to Section 28 of the Act to see that we have, in fact, been given complete freedom to carry out what has always been our true heritage, namely, dealing with the problems of the prevention of illness and educating the community in all matters relating to health.

In giving consideration to the future under this heading, we have not only to continue the good work we have commenced in connection with communicable disease, but with my definition of health in mind, we must produce a service which will cover not only the physical aspect, but will include the prevention of mental illness, and also emphasise the most important of them all, namely, the spiritual aspect.

The question now arises as to how this can be done, and on what lines should a comprehensive service be developed. The adage that "God helps those who help themselves" is very true, and unless the individual is receptive and willing to learn, nobody can help him. We are up against two big obstacles, the materialistic outlook of the times, and the attitude of the average man in the street who expects everything to be "laid on" for his benefit without any exertion on his part. A spiritual revival and a change of heart would assist us enormously.

I suggest that it would be appropriate for a special committee to be set up by the Society of Medical Officers to study the whole question of health education. Perhaps three members chosen from each group and one from each branch would suffice, with co-opted representation from the Ministry of Health, Central Council for Health Education, medical teaching centres, and various religious bodies.

The following methods of approach would, no doubt, be some of those considered:—

(*a*) *The Family Doctor.* In the past the family doctor was very often the guide, philosopher and friend of the family, but unfortunately this relationship shows signs of disappearing, though generally not through any fault on his part. There was a time when the doctor had a more leisurely practice and could study his patients as human beings, devoting some of his time to their problems. Nowadays, however, the speed of modern life prevents much of this more intimate relationship, while specialisation tends to emphasise the morbid condition and ignore the patient as an individual.

Medicine, too, has been good copy in latter years, with the result that much of a popular nature has been written in the lay press and in books, and extravagant claims are made in advertisements, thus encouraging the community to doctor itself, which is well reflected in the rush for medicines and prescriptions since the Health Service came into being. Where the general practitioner is often to blame, however, is that he has little or no inclination to interest himself in health as a positive factor in the lives of his patients, and frequently regards the medical officer of health with suspicion and resentment.

What, then, can be done to remedy this situation, and to encourage the general practitioner to return to his rightful place as one of the spearheads in a campaign to educate the public in positive health, as envisaged in the Health Act? We can do a certain amount by gaining his confidence, and we must try to convince him that the medical officer of health is a partner who can help him run his practice more efficiently by reducing sickness and enlightening the ignorant.

It is also important for the future that health should take its proper place in the medical curriculum at the teaching centres, not only in the training of the post-graduate who is

entering the public health service, but also as part of the training of the medical student. Not sufficient emphasis has been placed on this subject in the past.

(*b*) *Co-operation with the Churches.* This is of vital importance, and to my mind should be achieved not only locally but nationally. Such co-operation is not entirely new, as a Christian Medical Society was formed in Leicester at the beginning of the war and still flourishes. The monthly meetings are attended by doctors and clergymen of all denominations, and many useful points are discussed on the common ground that exists between these two professions.

A meeting of a similar nature was held in Dorset some months ago. It was called by a local branch of the British Medical Association, and the clergy were invited to attend. The meeting was such a success that it was decided to arrange future meetings of a similar nature.

(*c*) *Information Bureaux.* In Dorset we have in mind the setting up in due course of information bureaux throughout the county, where those who have problems of any sort can go for advice. The atmosphere of such bureaux must be friendly and human, and the personnel will have to be chosen with great care so as to ensure that their outlook is kindly and sympathetic. It is not assumed that all problems would be solved by the personnel at the bureaux, but they will be able to indicate to those seeking advice where best they can take their troubles; it may be the local parson, the psychiatrist, the Assistance Board or the Labour Exchange, and the closest co-operation will be sought with these and other individuals and bodies in order to render the scheme a success.

(*d*) *Films.* Undoubtedly films are an enormous attraction to the "man in the street," and full use of this valuable visual aid should be made in a future service for health education. The use of films at welfare centres, community centres, village halls and schools has only a limited value, as the audiences are "selective" and have attended for a special purpose.

To reach the masses, something should be done on a national basis to include unobtrusively films with an appropriate setting and subject matter in the ordinary cinema programmes. Surely it should not be impossible in this was to drive home the vital importance of certain fundamental facts in regard to the wider conception of health. This matter could well receive consideration by a special committee, as suggested above.

(*e*) *Lectures and Talks.* The showing of films at welfare centres, community centres, etc., can with advantage be supplemented by a talk, provided, and this is a very important point, that the lecturer has the correct personal approach, and that the subject falls within a prearranged framework. In fact, it would probably be desirable for talks and lectures to be provided and not be left to the individual to compile himself. This can quite easily be done without any suggestion of interfering with the personal liberty of the lecturer, who would, of course, be permitted to supplement the lecture, within reason, from his own experience.

Summary and Conclusion

I have formulated a definition for health, and have shown that the spiritual, mental and physical aspects of health must be taken together in any future scheme of health education if we are to carry out our duties thoroughly.

I have endeavoured to outline what I consider to be the main problems connected with the wider aspects of health, emphasising the spiritual content and indicating that the biggest problem in regard to physical health is not infection and personal cleanliness, which are already receiving adequate attention, but nutrition, which has become a world problem of the utmost gravity.

In conclusion, I should like to underline this important point, that we shall never make a service for health education a success unless we work together, both locally and nationally, carefully and with full consideration preparing the framework of a scheme before any attempt is made to operate it.

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THE FUTURE OF THE SCHOOL HEALTH SERVICE*

By Kenneth Fraser, M.D., D.P.H., D.T.M. & H., F.R.S. Ed.
County Medical Officer of Health and School Medical Officer, Cumberland

A Short History

No useful purpose would be served in tracing the history of the School Medical (now Health) Service, beyond pointing out that it was the Education (Administrative Provisions) Act of 1907 which made it an obligation of every local education authority to provide for the medical inspection of children attending the public elementary schools in the area of the authority. Prior to the passing of this Act, a proportion (about one in four) of the local education authorities in England and Wales had instituted schemes of medical inspection. It was the reports of two inter-departmental committees (*a*) that on Physical Deterioration (1904); and (*b*) that on Medical Inspection and Feeding of School Children in Public Elementary Schools (1905), which aroused in the public mind a feeling that a national enquiry into the physical condition of the children in the elementary schools of the country was urgently called for, and which led to the passing of the 1907 Act that made medical inspection compulsory.

The same Act gave *power* to local education authorities to provide, subject to the sanction of the Board of Education, treatment for the elementary school children of their respective areas. During the years which followed an increasing number of local education authorities instituted and developed schemes of treatment, and by the passing of the Education Act, 1918, it became an obligation on all local education authorities to provide treatment for their elementary school children.

The above is the historical foundation of the School Health Service, and the developments since 1918 have dealt with such matters as the extension of medical inspection and treatment to higher grade schools, the birth of interest in the educationally subnormal child, and in the affairs of the problem child, and in schemes for dealing with the problems of physically handicapped children—the blind, the deaf, the child suffering from chorea, the spastic, the child with cardiac disabilities, and so on.

The Education Act of 1944 did not very greatly expand the scope of the School Health Service. It did make it compulsory upon the parent to submit his child to medical inspection; it did reorientate, not too happily, the approach to the problem of uncleanliness in school. In this connection the original draft clauses were so patently unworkable that they had to be completely recast. The Act has refocused attention on the educationally subnormal child, and has, in fact, invented the very phrase "educationally subnormal" by administering the death blow to the unhappy classification of "mentally deficient" as applied to children still on school registers. Moreover, it has placed upon education authorities a very serious obligation to ascertain educationally subnormal children in their schools. This obligation is serious because ascertainment of the educationally subnormal, implying an intelligence test by an approved officer, and the completion of a Form H.P.2, is a lengthy and rather laborious business, and applied to 10% of the school population—for that is the accepted figure—involves many years of work for the persons approved for this purpose. It will be a very big step forward when the Ministry of Education are prepared to accept intelligence quotient figures worked out by trained educational psychologists for incorporation in H.P.2. That, unhappily, at the moment the Ministry are not prepared to allow, and the result is an inordinate waste of time on the part of assistant school medical officers. †

*A paper presented to the County Medical Officers of Health Group, Society of Medical Officers of Health, April, 1949.

†The Ministry has, since this paper was written, issued Administrative Memorandum 341 dated October 28th, 1949, which accepts the position that the educational psychologist may complete and sign that part of form H.P.2 dealing with intelligence tests, leaving it to the school medical officer to make the final recommendation.

Another headache arising out of the 1944 Act indirectly, and directly out of the Handicapped Pupils and School Health Service Regulations, 1945, was the elaborate—I think over-elaborate—new school medical record card. A standard medical record card for the country was obviously a good thing, but I am afraid that in counties—particularly in rural counties with long distances involved—the completion of this card, and compliance with the instructions of the accompanying circular, necessarily involve a very great expenditure of time and travelling—considerably more than I think is justified. I have, for my part, not attempted to implement all the requirements involved.

The Service at the Crossroads

All the foregoing is, however, now more or less of academic interest, because the position is that to-day the School Health Service is at the crossroads. Two questions particularly invite attention :—

(1) Is the School Health Service (including the School Dental Service) to remain under the control of local education authorities, or is it to be absorbed into the Civil Service as an integral part of the National Health Service, and under the control of the Ministry of Health or of the Ministry of Education, or under some joint arrangement between the two Ministries ?

(2) Has the impact of the National Health Service upon the School Health Service meant a loosening of the grip of the school medical officer, or has it brought any improvement to the Service, or is it likely to do so ?

Before examining these questions it should be said that the various legislative enactments which have developed since 1907 have placed in the hands of education authorities almost unlimited power, if properly used, to deal with every conceivable type of defect or ailment, emergency or otherwise, to which a school child can be liable. It is generally recognised that the School Health Service in this country ranks at least as high as any other in the world, and I suppose that no single factor in the Public Health Service has been of greater importance to the community over the past 40 years. Furthermore, the School Health Service has, to a large extent, been the normal channel of entry for recruits to the Public Health Service. Admittedly, many—unfortunately too many—have found it to be a dead end, but I suppose that most of us have graduated to our present posts of administrative control of large departments through the School Health Service in our younger days.

It has always seemed to me that the work of the School Health Service is exceptionally stimulating, and that it is difficult to conceive of a medical officer " with soul so dead " that the varied and interesting problems arising out of the medical inspection of a large school do not have a vitalising effect on his own work and interest. I suppose, too, that in no branch of the Public Health Service is the assistant medical officer, and to some extent the chief medical officer of a health department, brought into such close and intimate contact with large sections of the community, including the teaching fraternity, the employment exchanges, specialists in all branches, the hospitals and the community at large, as in the School Health Service. The loss of the School Health Service from the ambit of health departments, were this to take place, would, in my view, be a disaster of the first magnitude.

Will the Service be Lost to Local Government ?

Turning to our question (1) above, what reason is there to fear that such a disaster may be impending ? Among the associations of local authorities there is a declared desire and accepted policy of unloading on to one Ministry or another as many of the health services as can be got rid of. The incentive at the back of this policy is purely financial. It is the desire to switch the burden from the ratepayer to the taxpayer. The associations of local authorities fear the effect of new scales of salaries arising out of the " yardsticks " laid down by the National Health Service Act on the salaries of the medical and dental branches of local government ; and that, arising out of comparisons, a vicious spiral may be set in motion. Let us admit that grounds for comparison exist. For example, in my department an officer in receipt of a total salary, including bonus, of £1,310 per annum, has now retired, and his successor, appointed by the Regional Hospital Board, to do almost exactly the same work, will, if he is graded as a specialist, which I think is certain, proceed to a maximum remuneration of £2,750.

The associations of local authorities, however, overlook that, even if the medical and dental services did not exist, the need for a recasting of the salaries of at least the principal officers in local government would still arise, because it is common knowledge that men in all branches—legal, financial and technical—are proceeding to take up appointments under one or other Ministry under new schemes of nationalisation, etc., at salaries far in excess of those which they receive in local government. Nevertheless, there is known to be on foot a move to surrender the School Health Service to departmental control by regional hospital boards or otherwise, rather than face the salary issues which may arise more urgently out of the medical and dental staff situation in local government than from any other angle.

I ought not to shrink from reminding you that one of our own members quite recently, at an important conference, expressed the view that " taking the long view, it was inevitable that the School Health Service, with all the other preventive medical services, must finally be administered as part of the National Health Service." Recently, too, at a meeting of one of the Branches of the Society, medical officers were asked to adopt, and I understand nearly did adopt, a resolution urging the Ministry to take over direct responsibility for the medical and dental personnel of the local government service.

In this connection it may be worth recalling that Circular 179 of the Ministry of Education does not beat about the bush. The first three lines of paragraph 2, and paragraphs 4, 5 and 6, are particularly worth attention. The effect of these paragraphs is to place all important treatment of school children within the ambit of the National Health Service Act ; that is, of course, through the operations of regional hospital boards. All that is really left to education authorities is the provision of treatment for minor ailments, the dental service, and one or two trimmings such as child guidance and speech therapy.

We all know how easily and how quickly nowadays a suggestion, more or less casually dropped, gains hold of public imagination, and becomes embodied in a statute. We all know how, in recent years, time and again the tentacles of governmental control have stretched out to enmesh and absorb services which had hitherto been regarded as sacred to the local government service, and I think it behoves us by all and every means in our power to resist any possibility of the absorption of the School Health Service into the National Health Service. It is very much our duty not to be caught napping, and not to allow our authorities to be caught napping, in this matter.

The second question worth consideration is what has been the effect of the impact of the National Health Service on the School Health Service ? The answer falls into two parts : (*a*) So far as the actual medical inspection and the ascertainment of defects is concerned, the National Health Service has had no effect on the School Health Service at all. (*b*) On the other hand, when the question of treatment is considered, the effect has been considerable, and on balance the reverse of beneficial.

We have been asked, as school medical officers, in our reports on the School Medical Service for 1948, to include " a reference to any modifications consequent upon the coming into operation of the National Health Service Act, 1946." In my own experience the chief modification which has arisen out of the National Health Service Act, 1946, is that we, as school medical officers, have very largely lost our grip of the treatment side of the School Health Service. The reasons for this are obvious. In the first place, many practitioners are now referring children of school age direct to hospitals and specialists, and we know nothing whatever about them. In the second place, where the school medical officer himself refers school children to hospitals it by no means follows that any information reaches him as to the results of treatment and the need for after-care.

Lack of Information from Hospitals

I noted with interest in the recommendations of the Leeds conference of October 21st, 1948,* with which we are all familiar, that Recommendation 1 (*b*), referring to this dreadful word "socio-medical," stated that co-operation in some areas between the hospital authorities and education authorities for the exchange of information, both on admission *and on discharge*, was satisfactory. I should be much interested to know where these happy areas are situated! I doubt that this experience is other than exceptional. In my own area, in spite of having, as a result of paragraph 11 of Circular 179, and in accordance with the recommendations of the corresponding circular by regional hospital boards to hospital management committees, had printed a simple record card, the practical result has been a blank. We have two hospital management committees concerned with general hospitals. From one of these not a single card has been returned. From the other many cards have been returned carefully filled in, except for the only part which really matters, namely, "Further treatment required." It has, too, been apparent that only certain departments of the hospital services were returning these cards at all, even in a partially completed form. It is perhaps worth mentioning that these cards were in regular use up to July 5th, 1948, when, of course, they had a financial value, being in the nature of vouchers upon which the claims of hospitals for the treatment of school children were based.

Of the value of this information, especially in a rural county where distances between the home of the school child and the hospital rule out effective after-care and control by the hospital, there can be no doubt at all; equally, in many cases the information would be of the utmost value to the school medical officer in any area—urban or rural. For example, in a recent case, in which a child was found to be a bleeder, the information was transmitted to me directly by the specialist, and as a result the child's name was placed on our danger list in connection with such matters as future tonsillectomy and dental extractions.

Nevertheless, I was astonished at a recent meeting of medical officers in another part of the country to learn that a certain proportion do not desire to receive this information from the hospitals. If that is a generally accepted policy it means quite clearly that the school medical officer cannot maintain an effective grip on the treatment side of the service, and that assistant school medical officers, at future medical inspections, will meet teachers and parents *minus* essential information which they have hitherto possessed, enabling them to give useful advice. The result is bound to be that school medical officers of all grades will "lose face."

Before July 5th, 1948, when cases of infantile paralysis were discovered or suspected in my county I arranged for their admission to a selected isolation hospital where iron lungs were available, and which could conveniently be visited by orthopaedic specialists. No case was admitted without my knowledge. Since July, 1948, I find that cases have been admitted of which I have known nothing, nor do I know who is supervising the orthopaedic care of these cases.

The Ophthalmic Service

If another proof were needed that we have lost our grip on the School Health Service, it can be found in the ophthalmic services. I find, on looking at the figures submitted to the Ministry of Education for 1948 for this education authority, that of the children for whom glasses were prescribed, in nearly two-thirds of the cases I have no information as to whether glasses have or have not been provided. I think most of us appreciate that in all the acrobatics which accompanied the initiation of the ophthalmic services, with the multiplicity of forms and instructions involved, one of the most remarkable features has been that on the key form—O.S.C.2—the space made available for the eye specialist's remarks amounts to exactly 3 in. × ½ in. I do not know what happened in other areas, but in this area the eye specialists have been accustomed over the years to write extensive instructions, *e.g.*, in high myopes, as to limitations of school work—no fine sewing, no music, advice as to the position in the class-room which the child should occupy, as to special desks, as to advisability to avoid eye strain in preparation for examinations, as to the choice of a career, as to the dates of future re-examinations, and so on, and these remarks, to which we habitually attached the greatest importance, could, by no stretch of imagination, have been included in a space of 3 in. × ½ in. In addition to this, the fantastic situation arose, and still exists, that the eye specialist makes these recommendations to the Ophthalmic Committee of the Executive Council, and not to the school medical officer, so that the only channel through which appropriate action can be taken in such cases as high myopes in controlling the work of the child at school is deliberately bypassed.

One need not spend any more time in elaborating the theme that the impact of the National Health Service on the School Health Service has not in all respects been beneficial. These things may sort themselves out in time, but I am quite clear that I will continue to utilise the services of specialists at the expense of the local education authority in all cases where this seems to be indicated, and in which it seems particularly important that one should be in possession of the specialist's opinion. That this may mean some additional cost to the authority seems to me to matter not at all. The important thing is that it retains the grip of the school medical officer on the important case, and also maintains his direct contact with the specialists in his area, which is also, although secondary, a matter of importance.

* Quoted in the memorandum on Almoners under the National Health Service on page 112 of this issue.

CORRESPONDENCE

D.P.H. (LONDON), 1929–39

To the Editor of PUBLIC HEALTH

SIR,—We are most anxious to get into touch with all old students of the London School of Hygiene and Tropical Medicine who attended the D.P.H. classes between 1929 and 1939. We have already sent a letter to those whose addresses we could find, but there are many that we have been unable to trace. We should be most grateful if all old students, whether they are at home or abroad, who took the D.P.H. courses between 1929 and 1939 and who have not yet received our letter, would write to Dr. Windle Taylor, 51, Woodside Avenue, London, N.10, giving their addresses.

Yours faithfully,

A. H. GALE, G. E. GODBER, E. PEREIRA, T. STANDRING, E. WINDLE TAYLOR, ANN MOWER WHITE, and S. L. WRIGHT.

February 3rd, 1950.

PUBLIC HEALTH HISTORY

To the Editor of PUBLIC HEALTH

SIR,—Your annotation on Dr. H. C. Maurice Williams' splendid account of the early public health history of Southampton did well to emphasise that such surveys have "a more than local interest." They are, in fact, the key to much general history of public health in this country that has still to be written.

For example, until more material from local sources has been brought to light a great part of the early history of our own profession will remain a closed book and our ideas about the growth of local sanitary administration prior to 1875 will continue to be hazy.

These observations are based on experience of research in this field that has been going on for some time at the London School of Hygiene and Tropical Medicine. In connection with this work we would be grateful for a copy of past or future reports or papers by medical officers of health that contain references to the early history of their departments.

Yours faithfully,

IAN E. MCCRACKEN.

London School of Hygiene and Tropical Medicine,
London, W.C.1.
February 13th, 1950.

FLOUR "IMPROVERS"

To the Editor of PUBLIC HEALTH

SIR,—The decision of the authorities to discontinue the use of nitrogen trichloride (agene) in flour, after the Medical Research Council had recognised its serious and often fatal effects on animals, is to be welcomed.

It is difficult to understand, however, why it should have been necessary to replace this "improver" by another chlorine compound —chlorine dioxide—which, in my opinion, is not only unnecessary but, furthermore, will cost vital dollars, as it will have to be obtained from the United States.

"Improvers" are *not* necessary to safeguard baking qualities. They are merely artificial means to speed up the natural maturing of flour, at the same time bleaching it and giving a whiter *looking* loaf.

It is regrettable that in the popular belief whiteness in bread should be synonymous with purity. In fact, the very opposite is the case. To my mind, bread should contain nothing but pure unadulterated wheat flour. In the case of other foodstuffs, such as milk and butter, the addition of chemicals is already forbidden by law. Why not in the case of the "Staff of Life"—bread?

Yours faithfully,

C. P. ALLINSON.

The Mill House,
Streetly End,
West Wickham,
Cambs.
February 9th, 1950.

BOOK REVIEWS

Epidemiology in Country Practice. By W. N. PICKLES, M.D. (LOND.). (Pp. 120. Illustrated. Price 10s. 6d. net.) Bristol: John Wright & Sons, Ltd. London: Simpkin Marshall, Ltd. 1949.

This is a very welcome reissue, unaltered from its first appearance in 1939, of Dr. Pickles' classic description of what an acutely observant G.P.–M.O.H. can learn of the spread of infection in a scattered but relatively closed community like that of his "parish" —Aysgarth rural district in Wensleydale, Yorkshire.

The younger members of the public health service who did not have the opportunity of reading this book on its first appearance should not miss the chance of getting it now. As Prof. Robert Cruickshank has pointed out in his survey of 50 years' advance in prevention and control of infection (*British Medical Journal* January 7th, 1950, **1**, 25), it was Dr. Pickles' epidemiological *nous* which revealed catarrhal jaundice as a droplet infection. The late Prof. Major Greenwood, in his preface to this book, wrote: "I firmly believe that, just as tropical epidemiology received its greatest stimulus from Manson 'the doctor,' so will the epidemiology of our own country receive a fresh impulse from discoveries made, not by experts but by medical practitioners working patiently on the lines of Dr. Pickles." This, we would add, applies to medical officers of health as well as those in general practice and should be an encouragement to those also who believe that field work still presents the greatest of opportunities.

Brompton Hospital Reports. Vol. XVII. 1948. (Pp. 183. Obtainable from the Secretary, Hospital for Consumption, Brompton, London, S.W.3. Price 10s.).

In a dissertation on "The Pneumonias Associated with Epidemic Respiratory Infections," J. G. Scadding discusses the possible place of virus infections in this connection, but concludes that the evidence is equivocal. "Some Atypical Primary Tuberculous Lesions," by Margaret Macpherson, is an interesting account of five cases followed for ten or more years. In "Medical Contraindications to Flying," by Kenneth Robson, there is much sound advice for both lay and medical readers, but we think that he over-stresses the anxiety and fatigue of ordinary flying on ordinary people. "Cerebral Metastasis in Association with Intrathoracic Disease," by Maurice Davidson, reminds us of this most unpleasant complication of pulmonary and pleural sepsis by an account of three cases, and discusses possible routes of travel whereby bacterial and neoplastic elements can become lodged in the brain. A report of "Three Cases of Pulmonary Valvulotomy for the Relief of Congenital Pulmonary Stenosis," by R. C. Brock, is a noteworthy contribution to the growing literature on cardiac surgery. The conception of this operation, its execution, and its results are clearly described. Apart from its surgical aspect, this paper is of special interest and importance to cardiologists and paediatricians. In a paper on "Recurrent and Chronic Spontaneous Pneumothorax," the same author gives a very complete account of these clinical conditions. A critical survey of the existing literature, combined with a study of 71 personal cases, make most interesting reading. These two papers not only confirm by their subject matter the high reputation which Mr. Brock has gained as a master of his art, but are also written in a most attractive style. W. P. Cleland contributes two papers, one an account of a fatal case of cavernous haemangioma of the lung, the other a description of a lateral branch of the internal mammary artery which is found sufficiently frequently to make it a possible cause of haemorrhage after extra-pleural pneumonolysis A. T. M. Roberts reviews a follow-up of 128 cases of extra-pleural pneumothorax performed at the Brompton Hospital from 1937 to 1942, and discusses reasons for success and failure in this operation. "Advances in Thoracic Surgery," by N. R. Barrett, surveys the progress made in this speciality since 1943. One has only to read this article to realise what vast strides have been made in a short space of time. The value of the text of the papers is much enhanced by the high standard of the *x*-ray reproductions and other illustrations.

The Healing Touch. By HARLEY WILLIAMS, M.D., D.P.H. (Pp. 408. Price 15s. net.) London: Jonathan Cape. 1949.

Dr. Harley Williams has with this book completed a trilogy of biographical portraits. The first dealt with five doctors from John Elliotson to Robert W. Philip, and the second with Woodrow Wilson, Andrew Carnegie and Lord Leverhulme. The present volume covers three royal physicians, Sir William Knighton, Sir James Clark and Sir William Jenner; two prophets, Chadwick and Southwood Smith; Brown-Séguard, one of the founders of experimental medicine and discoverers of endocrinology; the Mayo brothers, Welch, Halstead and Harvey Cushing. These studies are as fascinating for the other characters they introduce as for the protagonists. Thus Knighton is seen mainly in contrast to his master, King George IV, whom he served finally as factotum and closest adviser rather than as physician; and Clark and Jenner involve many intimate sidelights of Queen Victoria in the earlier and later periods of her reign and a moving description of the Prince Consort's fatal illness; Brown-Séguard's story brings glimpses of Claude Bernard and of Dr. Thomas Addison (of "Addison's disease"); Florence Nightingale is linked with two other great Victorian women, Elizabeth Fry and Octavia Hill.

In his portrayal of two great pioneers of public health, Dr. Williams describes Chadwick's early association with Jeremy Bentham, and shows how the secretary of the General Board of Health's method was moulded by his master's utilitarian philosophy. Chadwick was by training a barrister and, says the author, "public medicine was an illegitimate offspring of the law." Southwood Smith was a much more attractive figure and he is here most sympathetically portrayed.

Dr. Harley Williams has a most gifted pen, and this is a thoroughly readable book, full of human interest, while it recalls some of the milestones which have marked the road to modern medicine.

Guide to Diagnosis of Occupational Diseases. By the staffs of the Industrial Health Division, Department of National Health and Welfare, and the Division of Industrial Hygiene, Department of Health for Ontario. Ottawa: Edmond Cloutier. 1949.

The aim of the authors is to provide a ready reference manual on the diagnosis of occupational diseases, for the use of Canadian medical officers, to whom it is sold at the low price of one dollar. The authors have succeeded in producing a book, most of which is of great value to industrial medical officers even outside the Dominion of Canada.

Chapter II, which gives a list of occupations and their potential hazards, is particularly useful, and by means of it a practitioner is able to see at a glance what diseases may be caused by a particular process.

Chapter III concerns "Harmful Conditions and Substances," and is divided into sections of varied utility. Abnormalities of temperature and humidity are tackled in too sketchy a manner, as is the section on Infections. Perhaps the best section is on "Harmful Chemicals," which are described under the following headings: Properties, Uses and Occurrence, Mode of Entry into the Body, Physiological Action and Toxicity, Signs and Symptoms. Unfortunately, both preventive and curative treatments are omitted. Should there be future editions of this publication, it is to be hoped that this important omission will be rectified.

The chapter on the logal aspects is suitable for use in Canada only.

Not only will the student or newcomer to the industrial medical service find this book useful, but to the average industrial medical officer it will serve as a most helpful publication of reference.

The Work of the Sanitary Engineer (A. J. MARTIN). Rewritten and enlarged by L. B. ESCRITT, A.M.I.C.E., M.I.S.E., M.R. (SAN.) I., and S. F. RICH, LL.B. (Pp. 669. Price 42s. net.) London: Macdonald & Evans. 1949.

A textbook on water supply, sewerage and sanitation of buildings, this book, based on the original work by the late Arthur J. Martin, is addressed to civil engineers, sanitary engineers, architects, surveyors, sanitary and building inspectors, and students of sanitary science.

It has been rewritten and enlarged by Mr. L. B. Escritt, chartered civil engineer, and Mr. S. F. Rich, LL.B., and the result is a well-written, comprehensive manual covering the whole field of sanitary engineering.

The book is divided into sections dealing with law and administration; water supply; sanitation of buildings; sewerage and land drainage; sewage treatment and disposal; and public cleansing. And three interesting appendices dealing with sheep ponds (or dew ponds); the mechanics of the divining rod; and that ever possible source of legal difficulty—the private sewer or "combined drain."

The first chapter gives an interesting picture of the historical development of the sanitary engineering profession, and the qualifications and training necessary to intending entrants.

The section covering law and administration is up to date, and includes the differences existing in London and the Provinces. Water supplies are fully dealt with, including interesting formulae and tables useful to both the practical designer and the student. Sanitation of buildings includes a useful description of the "one-pipe" system of plumbing, and also discusses the necessity of an interceptor to the house drain.

The authors trace the development of sewers from the early adaptations of existing water-courses and ditches, to the modern separate and combined systems of sewerage. The safety of the sewerage operatives is not neglected, and an interesting chapter deals with "the occupational hazards in the operation of sewage works."

Public cleansing and refuse disposal generally are dealt with adequately, but there may be some regrets that in this volume the authors had no space to discuss the value of composting household refuse with sewage sludge.

The book is well illustrated and represents a welcome addition to the textbooks dealing with sanitary engineering.

The Distinguishing Features of Fish. (Pp. 95 + iv. 81 coloured plates. Price 12s. 6d. net, or post free 13s.). London: The Fishmongers' Company, Fishmongers' Hall, London Bridge, E.C.4. 1949.

The Worshipful Company of Fishmongers has done a signal service to public health officers concerned with the inspection of food fishes in producing this beautifully illustrated book at what must be far below a commercial price. By one of the charming anachronisms of British life, the ancient City Guild of Fishmongers, one of the 12 great Livery Companies of London, still wields the authority granted by Edward I, if not earlier, to oversee the buying, selling and quality of fish marketed in the City of London. Those of us who have perhaps only occasional contact with the inspection of fish may be somewhat alarmed at the variety of fish which are used for food purposes in this country. Certainly this handsome volume will be of the greatest help in the identification of species which resemble one another and in adjudging the condition of certain fishes.

Fish and Fish Inspection. By JOHN D. SYME, O.B.E., M.S.I.A. (Pp. 168 + viii. 90 illustrations. Price 18s. net.). London: H. K. Lewis & Co., Ltd. 1949.

Another recent publication is by Mr. John Syme, who is Chief Port Health Inspector at Grimsby. This is a most fascinating and comprehensive textbook on the fishing industry (including the human element) and on the ills which fish are heir to. Any medical officer or sanitary inspector who is seeking an appointment in one of the fish landing ports should find this book an essential *vade mecum* for his work. The chapter headings will convey its scope: The modern trawler; the fishing grounds; the catching of fish and treatment in trawlers; differentiation and characteristics of fish species; inspection of fish; preparation and transportation; smoke curing, salting, processing and distribution; quick freezing as applied to fish, and canning; with a final chapter on legislation concerning fish. This is an admirable book, very well illustrated, on a rather specialised field but covering one of the people's main sources of nutrition.

Tuberculosis Nursing. By JESSIE G. EYRE. London: H. K. Lewis & Co. 1949. (Pp. 291. Price 21s.).

This book is essentially a handbook of practical nursing measures with only the minimum of theory necessary to make clear the rationale of these measures. As such, it is an ideal companion volume to some of the good textbooks on tuberculosis which have been written for nurses. The subject matter falls naturally into three sections, the nursing of pulmonary tuberculosis, orthopaedic tuberculosis, and the functions of the tuberculosis health visitor. The techniques described are the most modern, and are set forth in a clear and concise manner. The importance of the health visitor in any proper tuberculosis service is made clear by the excellent account of the work she should do. Full use is made of over 100 illustrations, and the book is produced in an attractive manner which makes for easy reading. This work can be recommended without hesitation to all who would read of modern tuberculosis nursing at its best; and also to those members of the profession who, through lack of knowledge, underrate this important speciality.

The Feeding of Children from One to Five Years. Second edition. Ministry of Health. (Pp. 16. Illustrated. Price 6d.) London: H.M. Stationery Office. 1949.

Many will remember the first issue in 1942 of this useful booklet designed to help with the feeding of pre-school children in nurseries or individually in their homes. The present new and revised edition should be welcomed both by the staffs of all establishments caring for toddlers and by intelligent parents. The last section, "Education of the Child in Sound Feeding Habits," packs a great deal of good advice into a small compass.

Chairside Charts for Dental Health Education. Dental Board of the United Kingdom, 44, Hallam Street, W.1. (Price 10s. 6d., post free.)

We welcome the return of the Dental Board of the United Kingdom to the field of public education with its issue of this excellent set of charts. They should find a place in every M. & C.W., or school dental clinic to illustrate the dental officer's spoken advice about dentition and prevention of caries. Another welcome issue by the Dental Board is of a set of gummed coloured pictures and rhymes for children to be affixed as a frieze to the waiting-room walls. (Price 3s. the set.)

Proceedings of the National Conference on Smoke Abatement, Harrogate, 1949. (Price 4s. 6d.). London: National Smoke Abatement Society, Chandos House, Buckingham Gate, S.W.1.

This full report of the addresses, papers and discussions at the Harrogate conference of October last is worth obtaining if only for Lord Simon of Wythenshawe's Presidential Address, a masterly account of the progress of domestic smoke abatement from the beginning of the century until now. The technical papers were also valuable and the progress reports from the various regions on such matters as legislation for "prior approval" of fuel burning apparatus, smokeless zones and district heating schemes are most interesting and useful to those who have similar desires in mind. This is a cause with the greatest health significance in which medical officers of health have played a leading part and should continue to do so.

The Tuberculosis Educational Institute announces London courses on tuberculosis in children and the use of B.C.G., which will be of interest to doctors (especially those attached to the School Medical Service), school nurses, health visitors, administrators and social workers. They are to be held in the Medical School at St. Thomas's Hospital, S.E.1, on *April 18th, 19th and 20th*, 1950. Visits to a London hospital and chest clinic will be arranged on *April 21st*. The fee for doctors is four guineas, and that for school nurses and others, one guinea.

Approval of the London courses has been granted by the Minister of Education, who will take into account for purposes of grant reasonable expenditure by local education authorities in respect of attendance of their school medical officers and school nurses at the courses.

Three-day clinical courses are being continued at Cheshire Joint Sanatorium, Market Drayton, Salop, and at King George V Sanatorium, Godalming, Surrey. Dates arranged for the first six months of 1950 are as follows:—

Cheshire Joint Sanatorium: February 8th, 9th, 10th; March 8th, 9th, 10th; April 12th, 13th, 14th; May 10th, 11th, 12th.

King George V Sanatorium, Godalming: January 24th, 25th, 26th; February 21st, 22nd, 23rd; May 10th, 11th, 12th.

Applications for further information and enrolment should be addressed to the Secretary, Tuberculosis Educational Institute, Tavistock House North, Tavistock Square, London, W.C.1.

Mycological Reference Laboratory: Public Health Laboratory Service (Medical Research Council).—Dr. R. W. Riddell, M.D. (LOND.), M.R.C.P. (EDIN.), has succeeded Dr. J. T. Duncan as director of this laboratory. Specimens for examination for pathogenic fungi should be addressed to the Director, Mycological Reference Laboratory, London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1.

Dr. Matthew Burn, M.C., F.R.C.P. ED., D.P.H., has been recommended for appointment as Medical Officer of Health for the City of Birmingham, in succession to Dr. H. P. Newsholme. Dr. Burn is at present deputy M.O.H. for the city.

Dr. J. F. Galloway, at present M.O.H., Doncaster C.B., has been appointed Medical Officer of Health and School Medical Officer, Wolverhampton C.B., to succeed Dr. R. H. H. Jolly.

ALMONERS UNDER THE NATIONAL HEALTH SERVICE

Memorandum of Evidence by the Society of Medical Officers of Health submitted to the Committee set up by the Minister of Health and the Secretary of State for Scotland to consider the Supply and Demand, Training and Qualifications of Almoners in the National Health Service and to make Recommendations.

The medical officers of health of Local Health Authorities have a definite interest in the scope of work of Almoners working in hospitals in view of the intimate relationship of the work of these ladies to the work of Health Visitors, home nurses and other social workers in the employ of Local Health Authorities.

Relevant Duties of Local Health Authorities

Section 24 of the National Health Service Act, 1946, imposes the duty on every Local Health Authority to make provision in their area for the visiting of persons in their homes by Health Visitors for the purpose of giving advice as to the care of young children, persons suffering from illness and expectant or nursing mothers and as to the measures necessary to prevent the spread of infection.

Section 28 of the Act empowers the Local Health Authority, and if the Ministry so directs may impose the duty, to make arrangements for the purpose of prevention of illness and for the care and after-care of persons suffering from illness or mental defectiveness, Section 29 permits the Local Health Authority to make such arrangements as the Minister may approve for providing domestic help for households where such help is required owing to the presence of any person who is ill, lying-in, an expectant mother, mentally defective, aged, or a child not over school age. In addition to these national Health Service provisions, the Local Authority has medical social responsibilities under the National Assistance Act and the Children Act.

Demand and Supply

Ministry of Health Circular 160/48 endeavoured to clear up some of the confusion during the early days of the National Health Service over the respective functions of hospital Almoners and officers of the Local Health Authority, particularly Health Visitors. The effect of the Circular was to advise that Almoners should confine themselves to the hospital and should obtain background information about hospital patients or pass on requests for after-care of patients discharged from hospital to the appropriate section of the Local Health Authority. We have made this preamble since it is obviously of great importance to the smooth co-operation between these two arms of the national health service that there should not be overlapping and confusion in their respective functions. This is obviously particularly relevant in considering the questions of demand for both Almoners and Health Visitors and the available woman-power for supplying the demand. At the present time there is an almost universal shortage of Health Visitors, so that it is with difficulty that health departments can meet all the calls for after-care, etc., in addition to the primary function of the Health Visitor in teaching mothers about the care and feeding of their infants and young children. But there have already been successful instances, *e.g.*, in Cardiff, Leicester and the West Riding, of Health Visitors having a direct contact with the hospitals in order to organise after-care of particular classes of patients, such as diabetics, asthmatics and those suffering from gastric ulcers, and of all who may require care during convalescence and rehabilitation.

We consider that the following passage from an agreement drawn up between the Leeds Regional Hospital Board and the Local Health Authorities in that region is a satisfactory statement of the present and future position:—

> 1. (*a*) As a matter of long term general policy the Regional Hospital Board and the Management Committees shall confine their responsibility to socio-medical work in the hospital and out-patient clinics, and that Local Health Authorities shall be responsible for domiciliary work.
>
> (*b*) Practical experience in the development of socio-medical work has already been gained by some Authorities in connection with the arrangements made for free treatment of school children under the Education Act, 1944, whereby the hospital notifies the Authority when a child is admitted and again on the discharge of the child, at the same time supplying the Authority with hospital findings. The Authority in turn furnishes the hospital, when necessary, with background information and also follows up each child to ensure that the hospital recommendations are given effect to.
>
> (*c*) The nature and extent of the information to be interchanged in this way between hospitals and health departments can only be shown after experience. It will differ in the various types of institution, such as sanatoria, general hospitals, maternity homes, mental deficiency colonies, etc.
>
> (*d*) Normally a medical report of a confidential nature is forwarded to the patient's doctor on discharge by the medical staff of the hospital. In addition, in cases where after-care is considered necessary, it is suggested that, subject to no objection being raised by the patient, the almoner should prepare two copies of a report—(*a*) one copy to be forwarded to the patient's doctor inviting him to make use of the Authority's socio-medical services; and (*b*) the other copy to be forwarded to the Medical Officer of Health, who would act in co-operation with the patient's doctor.
>
> (*e*) The supervision of patients leaving mental hospitals or mental deficiency institutions on licence under the Mental Deficiency Act is primarily the responsibility of the hospital or institution, but this does not preclude the possibility of arranging for the delegation of the visitation to Health Authorities, when the latter have sufficient staff. Joint arrangements might be made in suitable cases for the use part-time of mental health social workers employed by the Board and by Health Authorities. In such cases it would be necessary for the individual to be appointed to the Health Authority's staff and to be specifically authorised to act as stated in the Ministry of Health Circular 100/47.
>
> (*f*) Arrangements will have to be made for liaison between social workers, so that a series of people are not visiting the same home.
>
> 2. That, in view of the shortage of trained Local Authority staffs, some home visitation by hospital staffs may be necessary during the period of transition. Any such visits by hospital staffs will, however, be regarded as a temporary supplementary service to cease when full responsibility for the same can be undertaken by the Local Authorities concerned. It is undersood that visits by hospital staffs will normally be undertaken only with regard to patients from hospitals in respect of which the appropriate Management Committees and Local Authorities agree as to the general method by which the temporary supplementary service will operate.
>
> 3. That the services of the Authority's social workers at the respective clinics of the Hospital Management Committee, i.e., the Tuberculosis Visitors at the T.B. Dispensaries, V.D. Social Workers at the V.D. Clinics, the Mental Health Social Workers at the Psychiatric Clinics, should be considered as part of their normal duties. For the effective execution of their duties it is necessary for the social workers to assist in the work of the clinics and therefore the question of reimbursement to the Authority by the Board for services rendered is not necessary.

Functions and Training of Almoners

We have attempted to define our view as to what is the Almoner's function in the new service, which leads to the question also of her training.

(1) We assume that the first function of the Almoner is to ascertain the patient's social problems and to advise the hospital doctor of the relation of these problems to the treatment given; (2) we are agreed as to the great value of a medical social worker carrying out the above function in a hospital; (3) we are inclined to the view that Almoners in present conditions are too much engaged in routine duties which could be done by trained clerical workers; (4) we consider that the medical social training of the Almoner might be improved in the light of (1) above, and we have even considered whether we should recommend that the Almoner should have a basic nursing training or some form of shortened nursing training before proceeding to the social science course and her apprenticeship in almoning. We consider, however, that the better alternative would be special instruction to the almoning candidates in the aetiology and after-care of disease. Subjects to be dealt with might be—(*a*) effects of environment of health; (*b*) occupational factors in disease; (*c*) inheritance and disease; (*d*) causation, treatment and rehabilitation of tuberculosis; (*e*) after-care of patients having regard to common disease processes, particularly those with a tendency to relapse; (*f*) the preventive and after-care services provided by the Local Health Authority and by the School Health Service; (*g*) instruction in anatomy and physiology.

As part of the general instruction or training of Almoners we suggest consideration of an interchange between the social workers of Local Health Authorities and those of hospitals for purposes of gaining experience of their respective problems.

Almoners Employed by Local Health Authorities

It has been suggested at times that the best method of ensuring close co-ordination between hospital services and Local Health Authority services would be that Almoners, although working in the hospitals, would be officers of the Local Health Authority, on the analogy of the Venereal Diseases social worker or the Tuber-

culosis Visitor and social worker. We do not, however, consider that such a reorganisation is essential if friendly liaison between the hospital Almoners and local authority staffs can be established. We should, however, point out that a certain number of Almoners are at present directly employed by the Local Health Authorities, particularly in connection with the after-care and rehabilitation of the tuberculous. These Care Almoners make all arrangements for social services of the Local Health Authority and of care committees to be brought to the aid of the tuberculous patient, and there is no doubt that their work, with that of the Tuberculosis Health Visitor, should continue to play a valuable part.

In conclusion, we think it most important in the interest of good co-operation between Hospital Almoners and the officers of Local Health Authorities that all should bear in mind that they belong to one health service, although they are situated in different sections of it. Such realisation might obviate the fears sometimes expressed that transmission of information from the hospital to the health department is a breach of confidence. Health departments and their officers have in fact for many years satisfactorily handled much information which is confidential. The attitude would be that any information which is suitable for an Almoner should be equally open to a worker in another part of the National Health Service and *vice versa*.

SPEECH THERAPISTS IN THE NATIONAL HEALTH SERVICE

Memorandum of Evidence by the Society of Medical Officers of Health submitted to the Committee appointed by the Minister of Health and Secretary of State for Scotland to consider the Supply of, and Demand for, Training and Qualifications of Speech Therapists in the National Health Service and to make recommendations.

1. This Society is mainly concerned with speech therapists employed in the School Health Service which is provided under the Education Act, 1944, and its regulations and not the National Health Service Act, 1946. It is however reckoned as an integral part of the National Health Scheme and in fact employs more than half the present qualified speech therapists.

2. The particular term of reference with which we are most concerned is "Demand." Conditions of service of Speech Therapists are not specified in the terms of reference, but as these, through their influence on the output of work which can be expected must substantially affect relative demand and supply, we have included them in our evidence. (One of the drafters of this memorandum (Dr. Mary Sheridan) has already represented the College of Speech Therapists, to whom we are indebted for many of the figures quoted below.)

The Demand

3. The following points are relevant:—

(A) *Amount of diagnosis and treatment needed*

In the case of children this depends on—

(i) Incidence of speech defects occurring at ages up to 16.

(ii) Completeness of ascertainment.

(iii) The proportion of ascertained speech defects at ages up to 16 which require treatment by a Speech Therapist, and the variations of duration of the treatment, itself dependent on a number of factors such as type and severity of defect, child's age, child's intelligence, hearing and co-operation, both parents' co-operation, all teachers' co-operation, speech therapist's skill and patience. Availability of a Child Guidance Team for consultation and collaboration. Adequacy of accommodation, equipment, and clerical assistance for speech therapist.

(iv) The extent to which speech therapists are requested, or allowed, to carry out therapy (as distinct from diagnosis and observation), in very young pre-school or school children.

(B) *Amount of time a given number of Speech Therapists can devote to practical work with children*

The following observations link both demand and supply—

(i) Certain "conditions of service," governing working hours and holidays, which in the case of the latter appear to be very variable according to the employing authority.

(ii) The extent to which speech therapist's time absorbed in hospital or other works for adults, and the extent to which this time (if any) is given in evening sessions, when children could not be treated anyhow.

(iii) Possible stimulating effect of hospital work and variety upon interest and efficiency of speech therapist in school clinic work, and *vice versa*.

(iv) Possibilities of Group Therapy (*i.e.*, simultanous treatment of two or more children).

(v) "Indirect speech therapy," through teachers.

4. Our observations on some of these factors are:—

(A) *Amount of Diagnosis and Treatment needed*

Factor (ii). (*Completeness of ascertainment.*)—Ascertainment is essentially the duty of the clinical school Medical Officer, whose chief source of information will normally be the health visitor, parent or teacher. Not all medical officers, however, are fully competent to make a diagnosis of the particular kind of speech defect present, and, while referral to a speech therapist for an opinion is desirable, so is referral to some medical officer who has special interest in and knowlegde of speech defects and the home and educational background. It is recommended that on the staff of every Local Education Authority there should be at least one such Medical Officer, and, if such an officer is lacking, either a member of the staff should be selected and sent on a special course, or temporary arrangements be made with a neighbouring Authority to utilise the services of one of their School Medical Officers with the necessary qualifications. Eventually all School Medical Officers ought to be appropriately qualified and experienced. The need for better education of the medical student in Speech Therapy (perhaps including some lectures or demonstrations by a Speech Therapist), and especially of "members of the medical profession who are concerned with the Medical Direction of Speech Clinics," with a view to better co-operation on the part of the doctors, is also stressed in the Memorandum on the Utilisation of Medical Auxiliaries, published by the Board of Registration of Medical Auxiliaries in November, 1944. Postgraduate courses on speech and its disorders for doctors concerned with administration of speech clinics are specially recommended. Consultants in the hospital and specialist services, without intimate knowledge of school environment, would not meet the needs of this ascertainment and supervisory service, but joint Hospital and Local Education Authority medical officers of the type envisaged would do so.

5. The part which the School Medical Officer should play is also stressed in Ministry of Education Pamphlet, No. 5, on Special Educational Treatment, which states "Speech Therapists should work as part of the School Health Service under the School Medical Officer, who should be the link between them and the Dentists, and Ear, Nose and Throat Surgeons for defects of articulation, and with the Child Guidance centre for stammerers and any others who show emotional reaction to their disability. Children should be referred to a therapist by teachers through the School Medical Officer."

6. Again, the Chief Medical Officer to the Ministry of Education in his Report for 1939-45 states: "It is essential, if satisfactory work is to be done, that speech therapists should work under the supervision of the School Medical Officer, through whom all children in need of treatment should be referred to the speech therapy clinic."

(A) *Factors (iii) and (iv)*

(iii) Proportion of ascertained speech defects which require treatment by a speech therapist.

(iv) Extent to which Speech Therapists allowed to carry out courses of therapy on very young children.

7. Except when given a free hand at the time of referral (this should only be given in the case of either severe speech defects in a child over school entry age, or where speech defect is caused by a structural defect, such as cleft lip or palate, or after injury), speech therapists should not begin a course of speech therapy until authorised to do so by the School Medical Officer as described above. Pending the availability of such a medical officer, the Chief or a Senior Medical Officer of the L.E.A. should endeavour to undertake this supervision. Some pre-school children, also some who have only been in school a short time, are referred to a speech therapist with what amounts only to immature speech, or delayed ability to sound certain consonants, and therapy may be unnecessary, in that the defect would disappear spontaneously, possibly within a few months.

8. On the other hand, there must be careful medical consideration of the cases of all such young children before deferring speech therapy, for as well as those children with structural defects there are other speech-defective children, *e.g.*, with certain types of stammer, that can be greatly helped by immediate speech therapy, and/or advice to parents or teachers. Even if a decision to defer speech therapy is made, the case should be seen by the speech therapist at intervals.

(B) *Amount of time a given number of Speech Therapists can devote to practical work with children*

Factor (i). *Conditions of Service—Working hours and holidays.*

9. These vary widely in the services of different L.E.As. Up to about four years ago most speech therapists were regarded as

teachers, and on the ordinary "Education Department" instead of the School Health Department staff of the L.E.A. They normally received school holidays and worked a five-day week without evening work. Ministry of Education Administrative Memorandum 101 of 26/10/45, however, determined that Speech Therapists should henceforward be treated as members of the School Health Staff. Conditions of service laid down by different L.E.As. then began to approximate more nearly to those of other medical auxiliaries in the school health service, for some of whom conditions of service have been nationally negotiated (Whitley Council).

10. In the case of speech therapists this has only partially been done, and holiday leave still ranges from the maximum of that of teachers to a minimum equivalent to that of, say, health visitors. A few authorities still give full school holidays to speech therapists, others give eight weeks, others only three weeks. In support of the full school holidays it has been said that school children will not attend speech clinics during school holidays. This has not been our experience in areas where clinics remain open to an extent to justify closing the clinics, except perhaps during the Christmas week and during the days immediately following a Bank Holiday.

11. There is no justification for Speech Therapists receiving any longer holidays than other types of medical auxiliary, or than Health Visitors, but there may be a case for revision of the three-weeks' period at present usual for all such officers, for staff who are in constant contact with handicapped children and their problems may need a longer holiday. This principle has been recognised by the recommendations of the Reynolds Report, which have been accepted by the Home Office and the Local Authorities' organisations, that in Remand Homes, Superintendents should receive eight weeks and the other staff six weeks' annual holiday.

B. *Factors (ii) and (iii)*

(ii) Extent to which Speech Therapist's time absorbed in Hospital or other work for adults.

(iii) Possible stimulating effect of hospital work and variety on Speech Therapist's work with school children.

(*Note.*—Some of the Hospital work is probably for children of whom some, e.g., those undergoing plastic surgery, may be, or should be, in hospital schools.

12. We are in favour of speech therapists employed by L.E.As. being loaned to hospitals (with suitable financial recompense), provided that the hospital sessions do not encroach on the time available for treating school children (*e.g.*, evening sessions), or are compensated for by employing more speech therapists. A certain proportion of time devoted to treating adults as in- or out-patients, as well as children after plastic surgery, etc., will give variety and wide experience that must be both stimulating and balancing to the speech therapist in his school work. The Chief Medical Officer to the Ministry of Education in his report for 1935-45 (page 78) writing: "Speech Therapists employed by local education authorities should be encouraged to take up hospital appointments; the school and hospital clinics together give more variety of work than either does alone, and there is less chance of the therapist getting into a groove. A few local education authorities now permit this arrangement; it should become the general practice." We consider it preferable that the Speech Therapist should be an officer of the L.E.A. and therefore under the control of the School Medical Officer, than that he or she should be an officer of the Hospital Management Committee loaned to the L.E.A.

13. Unless the conditions of service specifically state that whole-time Speech Therapists will be required to work evening sessions where necessary (within the total number of working hours prescribed), and the salary scale is formulated with this in mind, L.E.As. should hand over to the speech therapist sessional fees received from hospitals for this work. This would be preferable to payment being made direct by the hospital to a speech therapist "whole-time," but direct payment would be more convenient in the case of part-time officers.

B. *Factor (iv) Possibilities of Group Therapy*

14. Some authorities favour Group therapy on the grounds that more cases can be treated at one time, while others consider that simultaneous speech therapy for more than one child is rarely practicable (except when there is a combination of similar defects and ages and temperaments). The latter consider that group therapy brings no net economy of time as it takes up a proportionately longer time for each individual case. In general, we advise that discretion should be left with all the Speech Therapist to use either group or individual treatment in each case or group of cases.

B. *Factor (v). Indirect Speech Therapy through Teachers*

15. It has been suggested that if Speech Therapists instructed school teachers in the rudiments of speech therapy, then some speech-defective children should receive this treatment, or some of it, from the teachers, reducing the frequency of their attendance at the speech therapy clinics and therefore lightening the demand.

16. Although the elementary instruction of teachers in speech therapy by qualified therapists might lead to certain changes, we feel that on the whole teachers would appreciate, through attendance at speech therapy sessions, that this was a matter for the expert, and would be encouraged to send cases in their own classes to the School Medical Officer for reference to the Speech Therapist.

17. On the other hand occasional visits by Speech Therapists, on the instructions of the School Medical Officer, to schools where there are speech-defective children, may be helpful in suggesting how the child should be generally managed and cared for in school hours—chiefly in a negative way, *i.e.*, what the teacher should *not* do or say.

18. Where it is quite impossible for a child, owing to residence in a very remote and isolated place, to attend a speech-therapy clinic, indirect speech therapy, still mainly on negative lines, may perhaps be arranged as a policy of despair, but in every such case the speech therapist should visit the child's home and advise the parents as well as visiting the school, while in the vicinity.

Residential Centres to serve the remote Rural Areas

19. The most satisfactory method for meeting the needs of the remote rural areas would be the establishment, on a local or regional basis, of residential special schools, or departments of other residential schools, in which intensive speech therapy can be given, thereby avoiding the difficulty of transport to distant clinics, and no doubt greatly shortening the duration of treatment before cure or maximum alleviation of the defect. This form of treatment, involving as it does also an entire change of environment for the patient, was considered necessary, under the special circumstances concerned, by the Board of Registration of Medical Auxiliaries in their Memorandum on the Utilisation of Registered Medical Auxiliaries, published in November, 1944. Such residential centres would also be valuable for the short-term treatment, by change of environment and/or intensive speech therapy, of selected children not living in the remoter areas.

Staffing Standard

20. Bearing in mind the various factors already discussed, we consider that the staffing standard of one whole-time speech therapist to 10,000 *school* children (primary and secondary, aged 5 to 15) should enable both the school children and the relatively few pre-school children selected for treatment (apart from diagnosis and observation) to be treated adequately. This standard was originally suggested by Dr. Peter Henderson in 1914 ("Monthly Bulletin of Ministry of Health," May, 1944), and was later adopted by the Chief Medical Officer to the Ministry of Education in his Report, "The Health of the School Child, 1939-45" (page 75). It assumed that Speech Therapists would work 5 to 6 *clinical* hours a day, and 46 working weeks a year as an average, with four weeks' annual holiday, plus the usual national ("Bank") holidays and occasional odd days (*e.g.*, for conferences, sickness, etc.).

21. For the whole country the application of this standard would require approximately 500 whole-time speech therapists for the work with children.

22. It is considered a reasonable assumption that the equivalent of a further 250 whole-time speech therapists would meet the needs of the adult population.

23. We are not in a position to say whether the standard of one speech therapist for 10,000 children aged 5 to 15 would meet the needs of children in Scotland.

The Supply

Present Position

24. The supply of qualified speech therapists is at present inadequate to meet the demand, but the four English and two Scottish Training Schools are at present working to capacity, and if the present rate of production is continued the gap between demand (for the equivalent of 750 whole-time speech therapists for England and Wales) and supply would be closed in about a decade, assuming that the Scottish students come to work in England or Wales. If a further substantial number of speech therapists is needed for Scottish children or adults, the gap would, of course, take another year or so to fill. We feel that in any case there is justification for the opening of additional schools in the provinces. One advantage of regional schools is that students attending them are more likely to be or to become familiar with the local accents or dialects.

25. There is a total of 289 qualified speech therapists at the present time in England and Wales, Scotland and Ireland. 151

whole-time speech therapists now work for Local Education Authorities, with 14 of these conducting hospital clinics in evenings only, in addition to their school clinic work. The needs of only 1¼ million (out of a total of a little over 5 million for England and Wales only) school children, and the pre-school children are met by this whole-time Local Education Authority staff.

26. Of the other 138 Speech Therapists, 48 are employed in hospitals only (nine whole-time and 39 part-time), and will therefore be available only to an insignificant extent for children who are not in-patients. Of the remaining 90, 47 are employed part-time by Local Education Authorities, with or without part-time work in hospitals. But the amount of time these part-timers do or can work, and the proportion of their available time that is given to Local Education Authorities, is not recorded. Nor is the allocation of these speech therapists between England, Wales, Scotland, Ulster and Eire recorded in terms of analysed whole-time employment, though the needs of Scotland, with 49 practising therapists, may be more closely met than those of England and Wales with 238, Ulster with only 2, and Eire with, so far as is known, nil.

"Chief" and/or "Senior" Speech Therapist Appointments

In Local Education Authority areas of sufficient population to require several speech therapists one should be a "Chief Speech Therapist," who can assist the School Medical Officer to make the best possible use of the time of the staff, in the choice of new staff, and in bridging the gap in changes of staff, and therefore economising on "supply."

Moreover, these appointments should have a direct and favourable influence on "supply" generally. A Chief Speech Therapist can help to make the junior appointments more attractive, by arranging periodical staff meetings and discussions, arranging contacts with hospitals, stimulating research, and by always being available to juniors for consultation and advice. The creation of senior posts also provides the prospective of promotion.

28. In areas where there will not be sufficient speech therapists to justify the appointments of Chief Speech Therapists individually, co-operation with adjoining areas to enable the appointment of a Joint Chief Speech Therapist might be encouraged.

29. This recommendation for the creation of more Senior posts does not affect our previous recommendation for the selection of specially experienced medical officers in each Local Authority area, but in areas so far deficient of such medical officers of a Chief Speech Therapist will meanwhile be able to help the senior School Medical Officer without special experience in Speech Therapy.

Transport Facilities

30. In all except the most concentrated Local Education Authority areas speech therapists, dealing as they do with bigger population per unit staff, will have to cover a wider area than most other field members of the staff of the School Health Service. In such cases a car will usually be essential and often be beyond the means of junior speech therapists. Local Education Authorities should therefore be prepared to provide motor-cars for the use of speech therapists, as in the case of other rural travelling officers, such as midwives. Speech therapists have been unable to accept appointments offered to them or have given them up after a short time, through inability to provide cars for themselves. Travelling allowances and loans for the purchase of a car, at little or no interest rate, do not entirely meet the case, owing to the debt which the young speech therapist incurs.

Sex

31. Personal attractiveness is probably a greater asset to a would-be speech therapist than to aspirants to other professions. Probably for this reason, students of speech therapy tend to be attractive rather than the reverse, and the training of the students is likely to enhance their personal qualities.

32. As the overwhelming majority of qualified speech therapists and of students at present training are female, a heavy wastage by marriage might be expected. During the student period statistics given by the College of Speech Therapists indicate only 11 per cent. of withdrawals of students over the last three years, of which marriage causes only one-third, the other two-thirds being equally divided between ill-health and unsuitability. Although a large number of female speech therapists continue this work after marriage, it is a significant source of wastage after qualification, as it is known to be in other professions in which there is a potent physical natural selection, such as, for instance, among "Physical Education" Teachers. We think that steps should be taken to attract more male students. Here Local Education Authorities and the Ministries of Education and of Labour could assist by making the profession better known in Secondary Schools for boys and in Youth Employment Centres, by making it financially more attractive, and by any other means that can be devised.

Qualifications and Training

A. *Qualifications*

33. The only British qualifications recognised at present are the "Licentiate of the College of Speech Therapists" (L.C.S.T.), and the higher qualification, "Fellow of the College of Speech Therapists (F.C.S.T.); the former awarded on the results of an examination imposed by the College after a three-year training course at a recognised Training School, and the latter awarded either on the results of examination or thesis, or for "Distinguished service to the Science of Speech Therapy after a period of not less than seven years' practice since qualifying." In our experience the College of Speech Therapists has set satisfactory standards and their examinations have produced a good quality of speech therapists.

B. *Training*

34. *Preliminary Requirements*

(1) Age: Students must have reached 18.

(2) General Education Standard: "School Leaving Certificate," or its equivalent, is a minimum standard. Some schools demand a higher one—"Matriculation Exemption" or "Higher School Certificate"

(3) Ability to raise a sum of money (varying according to investigation of the College, between £165 and £245, exclusive of personal maintenance; probably £900 represents an average total cost if maintenance is included) either independently or with the aid of grants. It is stated that about 60 per cent. of the students in training at present are grant-aided.

35. *Observations.*—As the present supply of students is sufficient to fill the Training Schools, and the output of the latter ought to meet the demand within a decade, no change of a boosting nature (except to encourage male students as suggested above) seems necessary or desirable, to avoid possible unemployment later; provided that speech therapists are not expected to emigrate on a substantial scale to Eire, Ulster, the Dominions or Colonies. If such a demand from overseas occurs, as it may well do, attractions to students in the form of training grants from the countries who need the speech therapists would be indicated.

36. *Training Schools.*—The two Scottish Schools are suitably spaced in Edinburgh and Glasgow, but all four English Schools are concentrated in London. We think it would be better if two of the London Schools were located elsewhere, preferably one in the Midlands and the other in Northern England. Therefore, if further Training Schools are opened (and the need for these appears to depend on the extent of overseas "demand"), it is recommended that these be set up in the Midlands and/or North. At present students who have perforce to train in London are under the handicap that they cannot practise on children of the type and voice of those in the areas where they have previously lived, or intend to work; morover, London students tend to apply more for posts in the Southern and Home Counties, to the neglect of the North and Midlands.

37. If overseas demand for British-trained speech therapists does not show the expected increase, it might be worth considering the removal of at least one of the present London Schools further North.

38. *Curriculum.*—Our only observation is that there may be too great emphasis on the need for the student himself to learn so much neurology, surgery, and psychology. Some experienced School Medical Officers have been surprised at the amount of superficial knowledge of these subjects which newly-appointed speech therapists exhibit and, if not tactfully and carefully restrained, may practise to the possible disorganisation of the school health department. We have heard of speech therapists carrying stethoscopes and otoscopes in their equipment, although it is understood that the former object is intended for therapeutic rather than diagnostic use. On the other hand, students should be encouraged to play their part as "medical auxiliaries," and to draw the attention of the Medical Officers to any apparent defect which appears to have been previously overlooked or neglected. It is also appreciated that some specialised knowledge of, say, plastic surgery may be of value to the speech therapist in hospital practice, increased liaison with which we have already commended as to the mutual advantage of both hospital and school-health practice.

The next Chadwick Lecture will be delivered by Dr. C. A. Boucher, of the Ministry of Health, on Tuesday, March 14th, at 2.30 p.m., at the Westminster Medical School, Horseferry Road, S.W.1. His subject will be "The maintenance of health by prevention of accidents in the home."

SOCIETY OF MEDICAL OFFICERS OF HEALTH

NOTICES

MATERNITY AND CHILD WELFARE GROUP

President: Dr. J. D. Kershaw (M.O.H., Colchester M.B., Divl. M.O., N.E. Essex).

A general meeting of the Group will be held on Friday, March 3rd, 1950, at 8 p.m., in the Hastings Hall, B.M.A. House, Tavistock Square, London, W.C.1, when Dr. J. E. Geddes (Birmingham) will give an address on B.C.G. Vaccination.

Preliminary Notice of a Post-graduate Week-end to be held in Cardiff from Friday, May 5th, to Sunday, May 7th, 1950

p.m. Friday, May 5th: Assembly of Group in Cardiff. Accommodation at Park Hotel, Park Place, Cardiff.

a.m. Saturday, May 6th:
(1) Lecture by Dr. A. G. Watkins, Paediatrician.
(2) Lecture by Dr. Arwyn Evans, Obstetrician and Gynaecologist.
Discussion.

12.45 p.m. City Hall. Luncheon by invitation of the Lord Mayor of Cardiff (Alderman T. J. Kerrigan).

2.30 p.m. Visit to St. David's Hospital to inspect Maternity Wards, Premature Unit and Human Milk Bureau.

7 p.m. Group Dinner at Park Hotel.

a.m. Sunday, May 7th: Visit to Llandough Hospital for Clinical Cases by courtesy of Dr. A. G. Watkins, Paediatrician, and Dr. D. G. Morgan, Medical Superintendent.

Further details will be circulated as soon as arrangements are completed.

The Chief Medical Officer of the Ministry of Health has approved the course, and agrees that a local health authority sending to this course one of their medical officers whose duties include maternity and child welfare might properly include expenditure incurred in this way in their grant claim subject to the usual conditions.

Applications for places should be sent to the Hon. Asst. Secretary, Dr. Mabel Dodds, 24b, Roxborough Park, Harrow-on-the-Hill, Middlesex, enclosing if possible registration fee (10s. 6d.) for the course. Cheques should be drawn to Dr. E. V. Saunders-Jacobs (Hon. Treasurer of the M. & C.W. Group).

REPORTS

HOME COUNTIES' BRANCH

President: Dr. G. Hamilton Hogben (M.O.H., Tottenham; Honorary M.B.'s Area M.O., Middlesex).

Hon. Secretary: Dr. J. Maddison (M.O.H., Twickenham M.B.; Area M.O., Middlesex).

The Metropolitan Branch and the School Health and Maternity and Child Welfare Groups were invited to attend the meeting of the Home Counties' Branch, held on Friday, November 11th, 1949, at the London School of Hygiene and Tropical Medicine, London, W.C.1.

Forty-seven members attended and heard a most interesting and stimulating address by Prof. T. McKeown, M.D., D.PHIL., Prof. of Social Medicine, University of Birmingham, on the work of the Department of Social Medicine, Birmingham.

NORTH-WESTERN BRANCH

President: Dr. J. Yule (M.O.H., Stockport C.B.).

Hon. Secretary: Dr. J. S. G. Burnett (M.O.H., Preston C.B.).

An ordinary meeting of the Branch was held at Manchester on Friday, November 11th, 1949, when 30 members and guests were present.

It was resolved that Dr. F. T. H. Wood, some time Medical Officer of Health, County Borough of Bootle, be nominated for life fellowship of the Society.

Mr. E. W. Anderson, M.D., F.R.C.P., D.P.M., Professor of Psychiatry, University of Manchester, then addressed the meeting on "The Relationship of the University Teaching Unit to the Psychiatric and Other Health Services of the Region," emphasising the disabilities inherent in trying to practice psychiatry *in vacuo* and the need for a close link between the teaching unit and other related bodies in the region. He spoke of the tremendous advances that had taken place in psychiatry over the past 20 years and of the unjustifiable risk of the psychiatrist becoming an adviser to all and sundry. There is a vogue at present and more is expected of the psychiatrist than he can be expected to fulfil in the light of the factual knowledge at present available. Emphasising the importance of field work, he drew the obvious corollary that the professor of psychiatry should be also the regional adviser in psychiatry.

Turning to the needs of the region, Professor Anderson paid tribute to middle European psychiatry and to the system of the *ad hoc* clinic existing on the continent. He suggested the establishment of an institute away from the confines of mental hospitals that could combine with teaching research both out-patient and in-patient treatment of neurosis and lesser conditions and of unstable and abnormal children and adolescents. The link between teaching, research and regional needs was in the speaker's view fundamental and the satisfactory achievement of this need was through the institute for nervous diseases.

Dr. Metcalfe Brown referred to the tremendous advances in knowledge and in methods of treatment that had taken place in recent years and welcomed the new approach outlined to the problem existing in the north west. Dr. Ross complimented the speaker on his refreshing and invigorating proposals and on behalf of the meeting thanked him for a stimulating address.

An ordinary meeting of the Branch was held at Manchester on Friday, January 13th, 1950, when 33 members were present.

It was resolved that Dr. R. W. Macpherson, retiring as Medical Officer of Health, Workington, who has been a member of the Society since 1920, be nominated for honorary life fellowship of the Society.

The President then welcomed to his first meeting of the Branch Professor Wilfred Gaisford, Professor of Child Health, University of Manchester, the third member of the professional staff of the university to address the members during the current session.

Professor Gaisford, in reply, welcomed the opportunity of meeting the members of the public health service and then gave a *résumé* of recent work in the care of the premature infant. He referred to the success obtained at St. Mary's Hospital in the newer method of withholding food from new born "prems" for periods up to 100 hours and advocated the more modern view that breast milk is not necessarily the ideal milk for the 2 to 3 lb. baby, advancing reasons in support of the view. He laid particular stress on the need for the right type of nurse in charge of a premature baby unit and of the need for effective follow up domiciliary work.

Dr. Stallybrass referred to early personal experiences over 50 years ago in the successful rearing of premature infants and to the progress made up to the present and congratulated Professor Gaisford on his modern approach to the hard core of the infant mortality problem. Dr. Jane Miller, on behalf of the members, thanked the speaker for the interesting, instructive and essentially practical observations which he had made so lucidly on a subject in which all were deeply interested.

SCOTTISH BRANCH

President: Dr. E. Neil Reid (M.O.H., Stirlingshire).

Hon. Secretary: Dr. John Riddell (C.M.O.H., Midlothian and Peebles).

A meeting of the Branch was held in the City Chambers, Glasgow, on Saturday, December 10th, 1949, at which 27 members were present.

A report on the Branch Council Meeting of December 3rd was given by the Secretary. It was noted that the memorandum being prepared on Mentally Handicapped Children would be circulated.

Home Accidents

The Chairman then introduced Dr. C. A. Boucher, of the Ministry of Health, who began by giving some facts on his subject, "Accidents in the Home." In England and Wales, with a population of some 43 millions, there were 7,000 fatal accidents in the home in one year (i.e., 0·16% of the population). In Scotland with approximately 5 millions, there were 850 fatal accidents annually in the home, giving 0·16% of the population again. Another way of saying this was that two people every day died in Scotland as a result of an accident in the home. Further, more children in Scotland are killed in their own homes than are killed on the roads or who die of any infectious disease. 20% of these accidents occurred in children under five in England and Wales and 24% in Scotland. 59% occurred in old people in England and Wales and 58% in Scotland. In these two age groups then, the very young and the old, four-fifths of the total number occurred.

With regard to trend, there had been no decrease lately. In fact, there was a possibility of some increase.

The number of fatal accidents did not by any means complete the picture. It must be remembered that the number of non-fatal accidents in the home was very large. Such accidents when they were not fatal often resulted in deformity, scarring and suffering of many other types. They also meant that the beds were filled in hospitals, whose resources might be already strained, and another less well-known fact of accident to the elderly was that it often meant the commencement of senile decay.

Some other facts regarding the epidemiology of accidents were as follows:—There were more accidents in poor homes than there were among the rich. There was an association of accidents with infirmity. There were more accidents in towns proportionately than in the country. There was one common factor—the presence

of overcrowding. There was an element of carelessness in most accidents, but structural faults in the home were only a small factor. Similarly, faulty appliances caused accidents, but not on any great scale.

Dr. Boucher then made reference to Dr. Marion Wright, who did work on this subject in Glasgow in 1943. She followed up 50 cases and found that squalor, overcrowding, and low mental intelligence all tended to promote these serious accidents.

It should be noted that accidents occurred in other countries approximately in the same proportion in the same age groups. The accident position was looked on in American as an epidemiological problem, each having a host, an environment and an agent.

Dr. Boucher then went on in more detail to describe four main types of accidental death:—

1. Falls—accounting for 60% in England and Wales and 49% in Scotland.
2. Burns and scalds—accounting for 12% in England and Wales and 12% in Scotland.
3. Accidental gas poisoning—accounting for 5% in England and Wales and 17% in Scotland.
4. Suffocation—accounting for 15% in England and Wales and 17% in Scotland.

In considering Group 1 in more detail, three quarters of falls occurred in elderly people. This evidence, brought out by Sheldon of Wolverhampton, showed that there were more accidents in women than in men. Old people had warning that they were about to fall and for some time before they actually did fall, they had been apprehensive of it. Most falls occurred in the evening or at night, on stairs or in the kitchen. The causes were variable. There was a vertigo which was very common in old people. There was often poor night vision. There might be a tremor of the hands or dragging of the feet, and the fall in old people was characteristic in type—the legs gave way and they fell like a log. The remedies that one could suggest were merely palliative. Special attention should be paid to stairs. Handrails should be put on both sides. Slippery floors and loose rugs should be avoided. Fires should be guarded (as much for the old as for the young). Night lights were often a great help.

Group 2.—*Burns and scalds* accounted for 12% in Scotland. There were actually 105 in a recent year, one-third in children under 5. There were 10,000 admissions to hospital for burns and scalds in any one year.

Children did not die now as they used to from burns and scalds on account of the change in treatment, but 50% of old people still died. The causes of burns in England and Wales were 13% from open fires, 9% from gas fires, 19% from electric fires, 6% from candles.

It was pointed out that the Children and Young Persons Act did not help very much, as the Police were not anxious to implement an Act that had not public opinion behind it. The common causes of such accidents were from matches, from carrying embers from room to room, or from the use of fireworks. The electric fire was a real cause of danger and it was interesting to note that a standard fireguard for them had been agreed with the manufacturers. It took the form of a flexible mica shield and was now on the market.

With regard to Scotland, 50% of the admissions were on account of scalds and they were mainly in young children. Tea was the commonest cause—26%. Other liquids accounted for 23%. It was found to be not uncommon for mothers to leave containers with hot water on the floor and for young children to topple in. With regard to prevention, proper setting of tables with no enticing and overhanging covers was advised. Attention was also drawn to grates. It was often found that a broken grate allowed a kettle to topple. It was estimated that three-quarters of these scalds were preventable with reasonable intelligence and care.

Group 3—*Coal Gas Poisoning*.—In Scotland there was a very high rate for this fatal type of accident. It occurred mostly in old people, with a diminished sense of smell. Apart from defective gas pipes, it mainly occurred in tenements where there were common meters. At times an old person would be sitting in front of the fire with the gas fire on. The gas would run out and somebody would put money in the common meter. When the gas came on again such an old person would just sleep away, not being aware of the danger.

Group 4—*Suffocation*.—These accidents mainly occurred between the ages of six months and a year. They were very difficult to investigate, but the number was going up. There were 289 in England and Wales in 1935 and 911 in 1947. The same increase was being seen in America and Canada. There were various causes —the soft pillow, over-laying, a cat lying on the child's face, a bottle left in an infant's mouth. There had even been an example of a plastic bib blowing over the child's mouth and nose and causing suffocation. Some thought that many of these cases were not really suffocation, but an infection, for instance, a pneumonia, and that suffocation was really the end effect of a severe toxaemia.

Electric shock was not numerically a larger factor. People were often, however, unaware of the relation of water and electricity. There was a great danger in having an electric appliance near to a bath, as, of course, if it should slip into the water, anyone occupying the bath was immediately electrocuted.

The Royal Society for Prevention of Accidents dealt with the design of houses. They exhibited films in cinemas. They arranged exhibitions. They advertised in the newspapers, and they arranged with the B.B.C. through the Radio Doctor and the Women's programmes to put valuable information over. There was always the imponderable question of human frailty. There was much scope for instruction in schools and in ante-natal clinics, and for public health work in the epidemiology of accidents. The great difficulty was that they were not notifiable.

Dr. Boucher finished by reference to a further danger for old women—from their long skirts trailing across radiators or other sources of fire.

In the interesting discussion which took place Drs. Lockhart, Peters, McMichael, Wattie, Reekie, Taylor, Laidlaw, Horne and Walker gave their experiences. In reply Dr. Boucher suggested that anyone interested in this subject might do well to have the use in any campaign of the Central Information Office film, "Playing with Fire."

The meeting was a highly successful one, the chairman mentioning that they had rarely listened to a more interesting and instructive talk. Dr. Boucher was cordially thanked for his address.

SOUTHERN BRANCH

President: Dr. A. A. Lisney (C.M.O.H., Dorset).
Hon. Secretary: Dr. E. J. Gordon Wallace, M.O.H., Weymouth, M.B.).

A meeting of the Branch was held at St. Paul's Hospital, Winchester, on Tuesday, November 15th, 1949. The President and 14 members attended.

Discussion of Clinical Cases of Interest

Dr. McLachlan (1) showed, as a pathological specimen, a very large piece of diphtheritic membrane from an adult female patient who had acquired a gravis infection in Germany. This patient had died. Throat swabs from her son, who had been immunised in America and was Schick negative, also showed a gravis type of C. diphtheriae. This boy was treated with procaine penicillin, 300,000 units daily for five days, and four subsequent throat swabs taken at 48 hourly intervals were negative. A fifth swab, however, was very positive for C. diphtheriae (gravis type) and the child had now been admitted, possible for tonsillectomy.

(2) Gave detail of a case of eczema vaccinata, originally diagnosed as smallpox. The patient, a six-year-old child, was unvaccinated and had suffered from infantile eczema, which recrudesced at intervals, and asthma. Egg culture of crusts were positive for vaccinia. The child died and later it was ascertained that there had been contact with a recently vaccinated child.

Dr. R. A. Good gave a *résumé* of the treatment of enteric cases with Chloromycetin. Dr. McLachlan referred to an increase in toxaemia within the first 24 to 36 hours of such treatment—? Herxheimer reaction—and said that VI + 0 serum therapy would appear to be indicated.

Dr. W. P. Cargill referred to the importation of dried fruits pounded together with 30% sugar and made up as crystallised fruits and fruit shapes. These were found to contain over 1,000 parts per million of SO_2 as sulphites (the permitted maximum being 100 parts per million of SO_2). These fruits had been passed for import on condition that they were used for manufacturing purposes only.

Address by Dr. R. Sutherland

Dr. Robert Sutherland, Medical Adviser and Secretary, Central Council for Health Education, gave a most interesting talk on his recent visit to America.

This was followed by a discussion and on the proposition of Dr. Ruby Pike, seconded by Dr. F. J. G. Lishman, a hearty vote of thanks was accorded to Dr. Sutherland.

WELSH BRANCH

President: Dr. Kathleen Davies (Divl. M.O., Mid-Glamorgan).
Hon. Secretary: Dr. Mary Lennox (M.O.H., Barry M.B.).

A meeting of the Branch was held at the Institute of Preventive Medicine, Cardiff, on Friday, January 13th, 1950. The President (Dr. Kathleen Davies), 20 members and three guests were present.

The President introduced Dr. P. T. Bray (Paediatrician, Welsh Regional Hospital Board), who addressed the meeting on "Chronic Non-Tubercular Respiratory Infections of Childhood."

Predisposing causes were poor housing, unbalanced diet, congenital enlargements of the adenoids and constitutional predisposition to allergy and streptococcal infection. Precipitating causes were hypertrophic rhinitis, sinus disease and infected tonsils and adenoids, all of which usually occurred before the child had been at school two to three years. It was during the early school years

that children were exposed to mass infection, such as measles and whooping cough, which affected the upper respiratory tract. A history of asthma was also very common in chronic respiratory disease.

The broncial lumen of children was narrow and made them prone to lung collapse, especially following sinusitis, broncho-pneumonia and whooping-cough.

Dr. Bray demonstrated, in tabular form, a series of cases of lung collapse. Results of treatment of lobular collapse were good, except in those complicated by asthma.

Labar collapse was prodromal to bronchiectasis as the bronchi dilated in the collapsed lobe. Once the collapse had been present over a period of months, treatment became extremely difficult.

Dr. Bray stressed that a combination of asthma, sinusitis and lung collapse was of serious import.

In a 15-year follow-up of bronchiectasis it was found that 33% died within that time; 50% were suitable for surgery, and of these 50% were rendered symptom free.

Dr. Bray illustrated his address with a series of excellent slides showing x-rays of the various conditions mentioned.

After a discussion in which Drs. J. C. Gilchrist, W. E. Thomas and Scott Thomson took part, the vote of thanks to the speaker was proposed by Dr. A. R. Culley and seconded by Dr. Anne Roberts.

WEST OF ENGLAND BRANCH

President: Dr. R. L. Midgley (M.S., Hawkmoor Sanatorium, Devon).

Hon. Secretary: Dr. R. G. Hector Denham (M.O.H., Bathalton and Frome, A.C.M.O., Somerset).

A meeting of the Branch was held at Shire Hall, Taunton, on Saturday, October 1st, 1949. The retiring President (Dr. Astley Weston) and 12 members were present.

A letter was read from the President-elect, Dr. Midgley, expressing his regret at being unable to attend the meeting to deliver his Presidential Address owing to illness in his family.

Dr. Wofinden, deputy M.O.H., Bristol, was nominated to serve on the joint advisory committee of the Bristol Clinical Area.

Much discussion took place on the resolution submitted by the County and County Borough Groups regarding lists of duties for the medical officer of health and his assistants and the advisability of the medical officer of health having a statutory place on the local executive councils and hospital management committees. It was decided that support in the main should be given to the resolution, but it was felt that, in respect of the first part of the resolution, on considering the duties which should be allotted to the medical officer of health of the local health authority and his assistants it was necessary also to define those of the district medical officer of health.

Also while it might be undesirable in the case of the larger authorities it would be preferable in respect of the smaller authorities that their duties under Part III of the National Assistance Act and under the Children's Act should be supervised by the medical officer of health. The second part was modified to read as follows:—

"That the Ministry of Health be asked to decree that local medical officers of health or their representatives should have a place on local executive councils, hospital management committees and Regional Hospital Boards."

Lengthy discussion took place on the recommendations of the Maternity and Child Welfare Group regarding the admission to hospital of maternity cases and it was decided to amend them as follows:—

(i) That the selection of cases on social and public health grounds should be made by the health authority staff in cases of tuberculosis, old age and maternity.

(ii) That the question of the suitability for home treatment is a matter for the patient's doctor and local health authority to decide and therefore arrangements for admission to hospital should be the responsibility of the local health authority and Regional Hospital Board.

(iii) That for the proper carrying out of the necessary statutory duties in regard to infectious cases it is essential that the arrangements for the admission of such cases to hospital be made by the general practitioner directly with the medical officer of health of the local sanitary authority.

The President referred to the fact that this was Dr. Blackett's last report as Treasurer and again paid tribute to his long and faithful service to the Branch. He asked Dr. Blackett to accept a book token as a small memento. Tribute to Dr. Blackett was also paid by Prof. Parry, who referred to their long association as Branch members.

A meeting of the Branch was held at the Central Health Clinic, Tower Hill, Bristol, on Saturday, January 7th, 1950. The President and 18 members were present.

Dr. Weston referred to the death of Dr. Weaver, one of the oldest members of the Branch, and asked those present to stand as a tribute to his memory.

Dr. Midgley was installed as President, the installation being made memorable on this occasion by his investiture with the recently acquired presidential badge. He then gave his presidential address under the title, "B.C.G. and All That" (to be published in April *Public Health*).

A vote of thanks to the President for his address was proposed by Dr. Charrett and seconded by Dr. Parry.

Salaries and Future Prospects

Considerable discussion took place on two matters which are exercising the minds of all members of the public health service at the present time, the first being the important one of salaries and the second the equally important, if not quite so immediately urgent, one of future prospects in the service. Dr. Charrett stressed the fact that it was impossible for the junior members to live on their present incomes without having to accept a greatly lowered standard of living which was grossly unfair to a service which had done so much for the community. It was said that public health was finished and yet young people were still being recruited to the service.

In his opinion, the time had come when they should be told either that there is no future, or given an opportunity of making their own contribution to the policies of the future.

It was decided at length that the following resolution be sent to the Council of the Society and also to all Branches and Groups of the Society with the request that they give it their full support.

> "That this Branch views with great concern the discontent of the members of the public health service, this being due to inordinate delay in adjusting salaries and conditions of service to meet present-day requirements, and urges the Council of the Society to do its utmost to bring about a speedy betterment of this unsatisfactory state of affairs."

In an endeavour to stimulate interest in the Branch it was decided to offer an annual award of ten guineas for the best paper read or published or the best piece of original work carried out by any member of the Branch. The award would be for the year ending June 30th, and any member desiring to be a candidate must submit an application, together with a copy of his paper or a suitable description of the work undertaken, to the Hon. Secretary not later than July 31st.

YORKSHIRE BRANCH

President: 1948-49, Dr. A. L. Taylor (M.O.H., Rothwell and Stanley U.D.C.); 1949-50, Dr. C. Fraser Brockington (C.M.O.H., West Riding).

Hon. Secretary: Dr. J. M. Gibson (M.O.H., Huddersfield C.B.).

An ordinary meeting of the Branch was held at Oulton Hall Mental Deficiency Institution on Friday, June 3rd, 1949, at 2.30 p.m. The President was in the chair and 17 members and a visitor attended.

This was preceded by a meeting of the Branch Council, at which four members were present.

Council Meeting of the Society.—The President of the Branch then reported on the decisions reached at the Council meeting of the Society held on May 20th, 1949. At the conclusion of his remarks he asked Dr. Brockington to make a statement on the training of Health Visitors which had been received at the Council meeting. Dr. Brockington said that the Council had agreed in principle to the report that he, Dr. Brockington, had drawn up; that the Council were awaiting replies from the Branches and that the Sub-Committee set up was dealing with these replies and had been given power to commence negotiations with the Nursing Sub-Committee.

History of, and Treatment by, Psychological Medicine

An address under this title was then given by Dr. H. P. J. O'Loughlin, Medical Superintendent, Oulton Hall Mental Deficiency Institution.

He said that the subject of psychological medicine had been largely ignored by the medical profession in the past. Persons requiring treatment fell into two categories, the mentally disordered and the mentally defective. Of the former 144,737 patients were under care in 1947, and of the latter it had been estimated in 1929 that in England and Wales there were 300,000 mentally defective persons. In addition, there were a large number of mentally subnormal persons, which had been estimated at eight per 1,000 population; it had also been found that the incidence of mentally sub-normal persons was 50% higher in rural than in urban districts.

The treatment of mentally disordered persons made a big stride forward in 1917, when cases of G.P.I. were treated with malaria and salvarsan. Subsequently physical treatment by means of electric-shock therapy had been used and this acted like a charm in cases of depressive psychosis.

The psychological treatment of mental disorders had only recently been introduced by Freud. His method of psycho-analysis necessitated an intelligent patient and one in whom the habit of abnormal thought had not been too firmly established.

The most recent treatment had been surgical treatment by leucotomy; this consisted in cutting the tracts between the prefrontal lobe and the optic thalamus. The results from this treatment had been most beneficial and in a number of cases had secured the social recovery of patients.

The stage had now been reached when an endeavour should be made to prevent these disorders occurring—

(1) by the study of genetics;

(2) by the study of environmental factors.

It had been stated that 29% of mental disorders were of genetic origin and 9% were due to environmental factors, and 62% were a combination of these two categories.

In 1796 the Retreat at York had been opened and for the first time humanitarian treatment of disordered persons was undertaken, whereas formerly disordered persons had been placed in chains; padded rooms and wards with locked doors now replaced chains as the means of control for such persons.

The notion of occupational therapy was later introduced and has been found an absolute necessity in the cure of cases of mental disorder.

The prevention of overcrowding, the giving of fresh air, good food, and suitable occupation, were the main deterents against the occurrence of mental disorder and there were also the elements of good social medicine; thus, medical officers of health should be brought in on the preventive side. If the environment was improved, the tendency or predisposition to mental disorder might be aborted. The medical officer of health should be in close collaboration with the mental health visitors on his staff and with child guidance clinics, etc.

The first main Act dealing with mental deficiency was that of 1914. It was estimated that two per 1,000 persons required institutional care. The imbeciles and idiots amongst the population were a rich field for medical research and there was little doubt that in a number of these cases there were physical causes for the defect; for example, there was undoubtedly some physical cause, at present unknown, which produced the condition known as Mongolism.

Seventy-five per cent. of mentally defective persons were feeble minded; the most important factor in this class was stability of character. Many feeble-minded persons could be employed if they were mentally stable and were suitable for dull and mechanical jobs and could hold these jobs if they were of stable character.

The speaker then went on to state that there had been a reduction in the infant mortality rate from 153 at the beginning of the century to a rate of 50 in 1939, but that the mortality rate was still four times as great in the social class V of unskilled workmen compared with class I, the independent and professional persons. He felt that this was due to the fact that in class V the parents were of low-grade mentality and that the development of mental health services might help to break down the hard core of infant mortality.

Following Dr. O'Loughlin's address a most interesting film was shown of the tying of the ductus arteriosus in cases of congenital heart disease.

At this stage the meeting adjourned for an excellent tea provided by the hospital staff, and following tea discussion was resumed on Dr. O'Loughlin's paper.

The President thanked Dr. O'Loughlin for his most interesting address. He referred to his classification of social classes and stated that the birth rate was much higher in persons of lower mentality and asked whether it was desirable that the health departments of local authorities should devote their energies to encouraging still higher birth rates in these classes. In his view it was extremely difficult to do anything permanent for psychoneurotic people, and, again, he felt that too much time and effort might be spent on this class to the detriment of the more normal members of the public.

Dr. O'Loughlin said in reply that dull-witted persons were valuable to the population and would do routine work and thus were socially valuable to the community. With regard to the psychoneurotic persons, the present difficulty in dealing with these cases was the insufficiency of trained social workers and that until such workers could be trained we should have to be satisfied with reports from other members of the health staffs.

Dr. Brockington asked to what extent Dr. O'Loughlin felt that heredity was the principal factor in producing mental deficiency, and to what extent, by improving the environment, the amount of mental deficiency could be reduced.

Dr. O'Loughlin said that social medicine could help to reduce the incidence of certain physical cases of mental deficiency, such as encephalitis and meningitis and that by improving the environment the stability of the mentally defective could be improved, although this would not influence the intelligence quotient. It was important in his view that the general public should be educated to understand something of mental deficiency and mental disorder, so that they could maintain a proper attitude to these subjects.

Dr. Roe (Halifax) said that in his view the number of mental defectives was ten per 1,000 population and that 14% of the population was dull and backward; he also stressed the fact that the birth rate showed that in this country the greatest amount of breeding took place amongst the members of the lower social classes. He stated that if all aments were eliminated it would have very little effect on the propagation of further mental defectives since the vast number of aments came from children whose parents were dull and backward. The main difficulty in dealing with mental defectives was the shortage of staff, places in institutions, and trained workers in the field. Idiots and imbeciles do not breed and do not therefore create a great problem.

Dr. O'Loughlin said that he disagreed with Dr. Roe on this latter point, for an idiot in a normal home was often a very great problem to the family in that home.

In conclusion, Dr. O'Loughlin stated that the humanitarian outlook in dealing with mental disorder and mental deficiency had been the greatest factor in enabling the problem to be dealt with.

The President again expressed the thanks of the Branch to Dr. O'Loughlin for his address and the answers he had given on the discussion which had followed.

SCHOOL HEALTH SERVICE GROUP

President: Dr. A. A. E. Newth (Senior S.M.O., Nottingham C.B.).
Hon. Secretary: Dr. A. Morrison (Senior S.M.O., Derby C.B.).
Assist. Hon. Secretary: Dr. J. B. Morgan (C.M.O.H., Derbyshire).

Annual General Meeting

The Annual General Meeting of the Group was held on July 15th, 1949, in the Hastings Hall, B.M.A. House.

The President, Dr. G. H. Hogben, was in the chair and 44 members were present.

In the absence of the secretaries, Dr. Cohen acted as Honorary Secretary.

The minutes of the last Annual General Meeting held on July 9th, 1948, were approved and signed.

Election of Officers for 1949-50.

The following were unanimously elected:—

President: A. A. E. Newth.

Past-Presidents: G. H. Hogben and J. E. Cheesman.

Hon. Treasurer: H. M. Cohen.

Hon. Secretary: A. Morrison.

Assist. Hon. Secretary: J. B. Morgan.

Representatives on Council of Society: G. H. Hogben, A. Morrison and A. A. E. Newth.

Election of Group Council for 1949-50.

The following were unanimously elected:—Drs. V. H. Atkinson, G. G. Buchanan, R. W. Eldridge, G. H. Gibson, Mary Gilchrist, E. D. Irvine, E. M. Jenkins, I. J. Jones, J. D. Kershaw, J. Landon, F. J. G. Lishman, J. N. Matthews, W. J. Pierce, T. S. Rodgers, A. L. Smallwood, J. W. Starkey, G. E. St. C. Stockwell, V. C. Veitch, G. F. Wilkinson, and C. L. Williams.

Drs. V. H. Atkinson and E. D. Irvine were cordially thanked for their services as Honorary Auditors and were re-elected for 1949-50.

Drs. Cheesman, Lishman and Morrison were elected as representatives of the Interdepartmental Committee.

Report of the Honorary Treasurer.—The Honorary Treasurer presented his report which was approved.

Report of the Honorary Secretary for 1948-49.—The Honorary Secretary reported that during the past year the Group had increased its membership from 319 to 375 and had successfully continued its general activities. Ordinary meetings had been held on December 3rd, 1948, when Dr. G. H. Hogben delivered his Presidential Address on "Opportunities in School Medicine"; on February 4th, 1949, when a joint meeting with the Dental Officers' Group was held which was attended by officials of the Ministries of Health and Education, and on April 29th, 1949, when Prof. Robert Cruickshank gave an address on "Food Poisoning."

The Group Council had met five times during the year to deal with many subjects of lively interest to school medicine. They had been concerned at certain implications with regard to child guidance in Circular 179, and the Society secured for them a deputation to the Ministry of Education, consisting of eight members of the Group Council with Sir Allen Daley, chairman of the Council of the Society. (See *Public Health*, December, 1948.) Through the Society they had made several representations to the Ministry of Education on the School Ophthalmic Service and two of its members were included in a small deputation from the A.E.C. to the Ministry. (See *Public Health*, January, 1949.)

Among other subjects examined were medical certification of school children, the attendance of children at the cinema and conditions relating to their employment, menstrual hygiene in schools, the prescribing of drugs by school medical officers and the teaching of physical education. The health of students attending universities had also been under consideration.

Other important subjects were still under discussion, *viz.*, the training of health visitors, Form 4 H.P., medical reports from hospitals on children discharged from hospital, and the provision of specialists by local authorities.

A very successful refresher course was held in London in April, 1949, and another mainly for senior medical officers had been arranged for September, 1949, in Bristol. The Group was to take an active part in the conference on Paediatrics to be held in London in November.

The Group received with regret the resignation on retirement of Dr. J. N. Dobbie, a member of the Council and a very active and pleasant colleague.

The Council had met that morning and had been asked to prepare memoranda for evidence on the supply, demand, qualifications and training of speech therapists and of chiropodists. They had also given attention to the question of a new edition of Kerr's Fundamentals of School Health, of the activities of the Foot Health Education Bureau, medical treatment for handicapped pupils, convalescent treatment and the ascertainment of educationally subnormal pupils.

"Common Foot Troubles in Children and their Prevention."

Mr. T. T. Stamm, F.R.C.S., Orthopaedic Surgeon, Guy's Hospital, then gave a stimulating address.

He said that the examination of young recruits during the war revealed a high proportion of foot disabilities. It was known that these developed during childhood and early adolescence at a time when preventive measures should have been taken. Orthopaedic surgeons had been guilty of a lack of intelligent interest in feet and their ailments, probably owing to the fact that as the deformities seldom gave rise to symptoms during childhood, they did not come under the observation of the surgeons early enough. He welcomed this opportunity of discussing the matter with school medical officers who had these children under observation and could bring the cases to the notice of the orthopaedic surgeons.

To most people foot trouble was synonymous with flat foot. A truly flat foot which was supple might be inefficient, but it could not be painful. In the absence of joint stiffness an appearance of flat footedness was not of any great importance.

Most of the foot troubles of adults were due to:—(1) Hallux valgus, (2) Hallux rigidus, and (3) Claw toes.

(1) *Hallux valgus* was primarily due to congenital abnormality of the first metatarsal, which was short, mobile and angulated medially like the metacarpal of the thumb. It was not easily detected in children, and although tight socks and faulty shoes were not primarily causes they had a considerable influence on the secondary deformities of which outward deviation of the toe itself was the most obvious. Preventive measures should have been taken before these secondary changes had developed.

(2) *Hallux rigidus* might be predisposed to by (*a*):—Undue mobility of the first metatarsal, leading to unnatural strain on the great toe joint which might become quite stiff by the age of ten. Or (*b*) it might be caused by a twisting inwards of the forepart of the foot with inversion and supination resulting in the great toe becoming flexed with secondary changes as in (*a*). Both these deformities could be corrected by operation which should be done before the age of ten.

(3) *Claw toes.*—The essential function of the toes was to exert active pressure on the ground when the heel was raised, so that they took part of the body weight, thus relieving strain in the metatarsal heads. This action was accomplished by the combined contraction of the long flexors and the short muscles (interossei and lumbricals). If the latter failed to contract for some reason, such as paralysis or the cramping effect of short socks and shoes, the toes were unable to carry out this function for the contraction of the long flexors alone would simply cause them to curl up. This unbalanced action eventually led to permanent contracture or "claw toes." The condition led to severe pain and disablement with painful callosities under the metatarsal heads and corns on all the toes. In mild cases it was amenable to physiotherapy, while, in the severe cases with paralysis of the intrinsic muscles, operative measures gave very satisfactory results provided that they were undertaken before deformities had become too severe or fixed.

Infinitely more disabling than any form of flat foot, these were the three main causes of foot troubles in adults and all tended to develop most rapidly during early adolescence and the years immediately preceding, although they were rarely noticeable under the age of eight.

Summarising, Mr. Stamm said that the types of cases orthopaedic surgeons were most anxious to see were:—

First, any foot that showed stiffness in any of the joints of the foot or toes, and especially the great toe.

Second, any deviation of the great toe outwards, especially when associated with an appearance of broadening in the metatarsal region.

Third, when clawing of the toes was present.

Fourth, an appearance of excessive flat footedness, associated with any stiffness of the foot or other deformity elsewhere, such as knock knees.

Mr. Stamm drew attention to the form suggested by the Foot Health Bureau for use in the inspection of the feet of school children, and added that the inspections might be done by physiotherapists or chiropodists who would refer those cases showing abnormality for decision by the medical officer as to whether they required further action. The examinations should be done at ages eight or nine and on leaving school.

Dr. Jenkins thanked the lecturer most sincerely on behalf of the meeting.

Ordinary Meeting, October 28th

An ordinary meeting of the Group was held at the B.M.A. House, London, on October 28th, 1949, 48 members and guests being present. The President was in the chair.

The minutes of the previous ordinary meeting were approved and signed. The Hon. Secretary then reported briefly on the work of the Council since the last meeting. The Council had met on July 15th and October 28th. A very successful Refresher Course was held at Bristol in September, 1949. Representatives from the Council had visited and reported on Physical Education in Training Colleges. Further consideration had been given to a revised form of H.P.4 and a form for Deaf and Partially Deaf children to replace Form 41D. The question of standard weighing machines had also been discussed and representatives had attended, along with representatives from the M. & C.W. Group and the Ministry of Health, a meeting with the British Standards Institution.

The reports of the Group, requested by the Society on the Demand, Supply, Training and Qualification of Chiropodists and also of Speech Therapists, had been prepared and forwarded. The question of medical reports from hospitals on children on their discharge from hospitals was still being discussed by the Society and the B.M.A. Other subjects which were listed for further consideration were the desirability of making special examinations of children for boxing, etc., the future of the young person in industry and the choice of employment and supervision of handicapped pupils.

The Group was then joined by members of the M. & C.W. Group, who had been invited to take part in the remainder of the meeting. This was devoted to the showing of a coloured talking film, "A Day in the Life of a Spastic Child," in which Dr. Phelps describes the work done in America for children with cerebral palsy. The film, which was interesting, instructive and technically excellent, was secured through the kindness of Mr. H. Weston, Executive Secretary of the British Council for the Welfare of Spastics. An address, "Some observations on the problem of the child with cerebral palsy" was then given by C. D. S. Agassiz, Esq., M.C., M.D., F.R.C.P., D.P.H., Superintendent of Queen Mary's Hospital, Carshalton, and Vice-Chairman of the Medical Advisory Committee of the British Council for the Welfare of Spastics. A summary of this address will appear in *Public Health*. The lecture evoked keen interest and elicited many questions. A vote of thanks to Dr. Agassiz and Mr. Weston was moved by Dr. H. M. Cohen, and seconded by the President of the M. & C.W. Group, Dr. J. D. Kershaw.

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